

# This Old House

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ANNIVERSARY

# "I'VE NEVER SEEN ANYTHING LIKE IT."

- GUY WHO'S SEEN EVERYTHING



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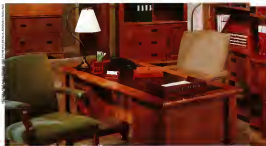


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Prescribed by



Serravallo's Tonic

It used to be a low-budget project with cast mates, critics and theaters wailing at it.

Article number published by February 17, 2018 and received by February 29, 2018

Enter January 1-February 17, 2004

**Experimented Time**

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**LANDSCAPE**  
**PAINTING**



1. **Summary of the Case:** The case involves a dispute over the ownership of a piece of land. The plaintiff, John Doe, claims that the land is his, while the defendant, Jane Smith, claims that it is hers. The court has heard evidence from both parties and has now issued its judgment.

2. **Findings of Fact:** The court has found that the plaintiff has provided sufficient evidence to establish that he is the owner of the land. The defendant's evidence was found to be insufficient to disprove the plaintiff's claim.

3. **Legal Principles:** The court has applied the principle of "burden of proof," which requires the party making a claim to provide evidence to support it. In this case, the plaintiff met this burden, while the defendant did not.

4. **Conclusion:** The court has ruled in favor of the plaintiff, John Doe, and has ordered that the land be returned to him. The defendant, Jane Smith, is ordered to pay the plaintiff's legal costs.

5. **Comments:** This case is a clear example of the importance of evidence in a court of law. The plaintiff's evidence was strong and convincing, while the defendant's evidence was weak and unconvincing. The court's decision is based on the evidence presented, and it is a fair and just decision.

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**A NEW OLD HOME, P. 74**  
With its barnyard ecology and built-in birdhouses, this new house evokes the feel of a traditional Craftsman while meeting the needs of a modern family. For more, see page 74.

## features

## Treasure Hunt

*Salvage yards are a gold mine of antique house parts.* By ANN R. HARRIS

## A New Old House

*A contemporary Confucius harvests the best from the best* By JIM HIGGINS

## TV Project House: Pushing Ahead

As the Concord village enters completion, the TDH crew makes the most of a small space. By Matt Anderson

## Hollywood Comeback

*A crumbling estate from Hollywood's heyday gets a new life* By Mary Berry Gomez

## Stoves, Cooktops, and Ovens

On TCM's 25th anniversary, we highlight a quarter century of innovation. By SAM DECARICO



SAVAGE, FRANK THOMAS MONT. B. 1911



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FOR THE WAY IT'S MADE.

COVER

With half tones of village plates, village yards and even the a kilometer's military route link. But before your emotions get the better of you, let the T&E team tell you how to come prepared and avoid "hangup" mistakes. See the story on page 60. PHOTOGRAPH BY KYLE A. MILLER

A big weekend deserves a great big burly truck. Like the all-new Toyota Tundra Double Cab. With more torque than the Ford F-150 SuperCrew, this powerful i-FORCE V8 gives you everything you need to pull your own weight. Not to mention somebody else's.

**Keywords:** #MeToo movement; workplace violence and victimization experiences and behaviors; workplace sexual harassment; workplace sexual assault; workplace sexual abuse; workplace sexual violence; workplace sexual aggression; workplace sexual harassment; workplace sexual assault; workplace sexual abuse; workplace sexual violence; workplace sexual aggression



TOYOTA

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BOISE: TONY HARRIS; PHOTOGRAPHY: TONY HARRIS

FIX IT YOURSELF, P. 32



PHOTO: JIM HARRIS; PHOTOGRAPHY: TONY HARRIS; PHOTOGRAPHY: TONY HARRIS

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## MANAGEMENT AND DESIGN

### Essential Power Tools

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## TELEVISION PROGRAMS

### Project Diary

Get behind the scenes of our latest projects. In this series, we take you behind the scenes of our latest projects. You'll see everything from the planning stage to the final reveal. It's a behind-the-scenes look at the projects that make this show so special.



## HOMEOWNER'S ALLIANCE

Meet the homeowners who have made this show so special. In this series, we meet the homeowners who have made this show so special. You'll see everything from the planning stage to the final reveal. It's a behind-the-scenes look at the projects that make this show so special.

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Shortcuts: For links to these pages and more, go to [www.thisishouse.com/shortcuts](http://www.thisishouse.com/shortcuts).

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## LETTERS



### Bookcases

I really enjoyed your cover story on bookcases (November 2005), but the value of solid-wood goes beyond factors such as strength and cost. Oak and pine, even with a seal, are solid-enough to damage books over the long term. One solution is to cover the shelf tops with acid-free linens. *Theodore, Atlanta, Ga.*

*The editors reply:* Experts we checked with disagree on the level of risk posed to books by the acids in finished wood shelves. But for treasured books, lining shelves with linens (Tyvek) material may offer extra protection. Available from [library-supply.com](http://library-supply.com) (see [www.woodproducts.com](http://www.woodproducts.com)).

### Garage Door Panel Fix

In *Fix This Old House*, "Resurfacing the Panels of a Garage Door" (November 2005), I was faced with a similar problem: a bottom section panel chewed through by rodents and deteriorating slats and rails. The door was more than 40 years old and a standard fix, replacing the entire section, would not do. I replaced the door by building a new panel out of a piece of plywood cut to the same size as the entire section. Then I made and attached false slats and rails to the front of the piece of plywood so that it would match the other panels. I used a router on the edges of the slats and rails to stain the originals and gave the entire door a few coats of paint. The homeowner likes my custom-built new "fix." *Scott Owens, Lawrence, Mass.*

### Kidproofing a Bucket

I was alerted to read one of the ideas for making joint-compound buckets (iBuckets) of mine. On the job, November 2005) suggested using them with a small hole in the bottom to water plants. Every joint-compound bucket I've

seen seems against having water-filled buckets around because children can fall in and, unable to flip them over or pull themselves out, drown. I would be very wary of using these outdoors. A shallow tray would be better—though it would have to be filled daily after.

*Sam L. Cross, Minnetonka, Minn.*

*The editors reply:* Excellent point. Any large container filled with water poses a drowning hazard for small children and animals. In this case, a dry-out bucket should be used for slow-drip irrigation only with its lid tightly secured. A few small holes in the lid will help the water drip from the bottom.

### Key Inspection for Panel Home Buyers

Your primer on home inspections, "Looking for Trouble" (October 2005), outlined advice on a subject crucial to rural and suburban buyers: the septic inspection. First, buyers should find an independent specialist and not rely on a conventional home inspector. Also, take a peek on the traditional low-cost do-it-yourself test before a test debate. Only the most basic follows: A better choice is a fill or flow test, in which a much larger quantity of water is flushed through the system, followed by a probing of the leech field or digging of a hole to detect efficient barking over the surface. This test is usually accompanied by sewerline and opening the tank lid to do a visual inspection.

I write from experience. Two years ago, we opted to spend about \$400 on top of our regular inspection to do a flow test on the 18-year-old home we had contracted to buy. Though the prior owners had never had a problem, the test revealed efficient clogging to within 6 inches of the lawn. The repair was a \$12,000 excavation—which the sellers refused to make. After much stress, we found a better house down the road.

*Ann Guss, Westmoreland, Pa.*

### punch list

*Editor:* I used to be a construction site or construction site as a construction job.

"The success of the home industry in 'A New Old House'" (October 2005), written by the late of Ray M. Spector, Anderson, Wisc., Ohio. It is a journey for "Selling for Dollars." October 2005, we printed an owner's letter and a letter to the "Chicago" Home & Building Inspection. The company is based in Chicago, Ill. 1-800-307-0700.

Addressed to: Editor, The Old House Magazine, 1380 Avenue of the Americas, New York, NY 10020, or email at [info@oldhousemagazine.com](mailto:info@oldhousemagazine.com). Please include your address, phone and e-mail addresses. Published letters will be edited for clarity and length and may be used in other media.



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# ON THE JOB AT THIS OLD HOUSE



When *This Old House* first aired in 1979, no one could have predicted its enduring popularity or the impact the show would have on the television landscape. Today *This Old House* is more vibrant than ever—a multimedia brand reaching over 45 million people each month through three TV shows (*This Old House*, *Ask This Old House*, and *Ford's*), *This Old House* magazine, and two Web sites ([www.thisoldhouse.com](http://www.thisoldhouse.com) and [www/ford-tv.com](http://www/ford-tv.com)). Come celebrate with us as we kick off our 25th-anniversary year. We've got some great things planned for the coming year—on TV, on our Web site, and in special features in the magazine (look for the blue 25th-anniversary logo). It's been an exciting journey so far, and the best is yet to come!



## The Concord Grape

**D**id you know that the Concord grape, which produces the grape juice and jelly so many of us grow up on, got its name from Concord, Massachusetts, home of the current TV show project? In fact, a 100-year-old grapevine is growing a few yards from the 19th-century cottage that the *TOH* crew is renovating. The vine owes its longevity to Ephraim Wales Bull, who in 1849 planted a row of 20,000 different seedlings (all native to the rugged New England soil) at his Concord farm, before discovering the perfect, cold-hardy grape. Though Bull's silver-fruit gained international fame, he died in near-poverty. His grandson made "the saved—often unpaid."

They're still reaping. Each year, more than 400,000 tons of Concord grapes are harvested for the production of juice and jelly. One afternoon this last season, a few tons of Concord grape jelly were made right at the project house. The crew was doubly sweet. Said one lucky taster: "All I could think was, get me the present basket! And I don't even like jelly!"

For the complete recipe, and the whole story on the project's vine, go to [www.thisoldhouse.com](http://www.thisoldhouse.com) and type "Concord grape" in the search box. —By Don DeVos



## GenderBender

Men choose the tools, women pick the curtains, right? Not exactly. A recent study conducted for *TOH* reveals a far blurrier gender divide in home-product purchases.

We asked: "Use a percentage to indicate how much influence you or other household members had on the most recent purchase of your home's \_\_\_\_\_." Here's how the numbers stack up.

| Type of Purchase         | Female | Male |
|--------------------------|--------|------|
| Major kitchen appliances | 87%    | 43%  |
| Hard floor coverings     | 53%    | 47%  |
| Decorative hardware      | 55%    | 45%  |
| Windows and doors        | 44%    | 56%  |

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## Flashback: 1989 Roger Cook

**B**efore I joined *This Old House*, I thought landscaping business was complicated. Throw in the scheduling demands of television, though, and you raise it to a whole new level. It took me all of two 70th projects to figure this out.

We were in Concord back in 1981, and the landscape plan called for a row of screening trees in front of the newly built barn. No problem, except that it was December before production was ready for the shot, and a cold December at that. The ground was frozen solid. But what could we do—wait for spring to resume filming? So the day before the shoot, I went over to the job with a jackhammer, dug out the holes and

planted them with bag to keep the ground from refreezing overnight. Next morning I got to the site before everyone else, pulled out the bag, and filled the holes with fresh loam from the garden center. By the cameras rolled, that's what everyone saw as digging up. I'll bet it looked easy, too, if only they knew. But hey, whatever it takes to get the job done.



## QUICK SAND

Perusing contractor Jim Cook and his crew are saving time and material on roofing with Hilti's 3K sandpaper. The paper's fiberglass-reinforced backing is extremely flexible and durable, so it can be folded that way without without ripping. Plus, its specially heat-treated aluminum-oxide-grit surface is fast cut into sand without clogging. Available in a range of coarse-coarse grits at hardware stores nationwide.

## Tile Style

From his studio in New Orleans's historic Lower Garden District, artist Mark Darby borrows from surrounding buildings to cast one-of-a-kind ceramic tile. He takes these from molds taken of existing architectural details, including Victorian-era brass door push plates, Gothic stonework, and Greek Revival cast-iron balustrades. To craft the tiles, Darby first presses clay into molds, then fires each piece with a palette of historically true glazes. The finished tiles become accents in walls, fireplace surrounds, or kitchen backsplashes. Says Darby, "It's a way of extending the lives of these historic details by reintegrating them in modern building materials." Prices range from \$4 for a 2-by-3-inch mosaic tile to \$95 for a 4-by-8-inch border. All are made-to-order and can be purchased through [www.markdarby.com](http://www.markdarby.com). —Amy R. Hughes

*Recreated ceramic tiles that replicate Victorian-era brass door push plates, as created by New Orleans artist Mark Darby.*



## TOO TECHNIQUE

## Removing Trim for Reuse

Taking trim off cleanly so that it can be installed again is a common order on many home-repair projects, whether you're replacing windows or fixing a rim floor. The following steps will help you take it off without harming the wood—or yourself.

**STEP 1:** Score through the caulk seal between the trim and the wall. This will keep up the trim and protect the wall's finish coat.



**STEP 2:** Working end to end, pry up the trim with a small pry bar or the claw of a hammer. A putty knife slipped behind the pry bar will open finished walls from dents. To keep the trim from splitting, get your tool as close to the walls as possible, and pry gently.



**STEP 3:** Preserve the face of the trim by pulling the finish nails out from the back side with end nippers.

—Alex Powers



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## ON THE JOB



## BEFORE & AFTER

This single-story Neoclassical cottage in Duluth, Georgia, will turn a graceful 100 years old in 2005, thanks to a diligent restoration by David and Jane Wilson. To restore the full-frontal porch, the couple added slender, square columns, replaced the ornate flowering-wood brick, and installed a new

beakward coding. They also put in a surface landmark—a common flourish of Neoclassical design that is accentuated here by the switch to dark oxblood shingles. Handsome landscaping sounds like the transformation, including a bed of foundation plantings and, here on Boston's front

Have you dramatically changed the look of your house? If so, send before and after snapshots, plus a short description of the project, to: [Dea@Houzz.com](mailto:Dea@Houzz.com). Two issues of the magazine, 275 West New York, NY 10088.

### Lesson Learned

der Gruppe **Stylis**  
mitte 1970er Jahre



**A**bout 15 years ago, my husband and I bought a tiny Greek Revival house. It had exquisite proportions, like a fairy temple, but it was in appalling condition. It had never had plumbing or wiring, and the owner had kept a home in the loft.

Like most of us, however, it was directly on the road, and we decided to move it to a better site. The house owners were a family business; they'd been doing it for decades, and their possessions worked in a neat project. The grasshopper, who came to supervise, walked the site and said, "I think it's a big dump." But the surveyor and the contractor said they'd checked and it was fine. So we moved the house and set about reroofing it. Not long after, a big rain hit—and we had a swimming pool in the basement, overflowing the new furnace and everything else in 4 in. of water. If you go to see the house now, there's a lovely new deck pond on one side, and more rooms in the basement.

I learned to always listen to the oldest guy on the job site.

Get your own lesson to share? I need to know **WHO** & **WHAT** you're doing. Send it to [info@1000words.org](mailto:info@1000words.org) or call us, The 1000 Words, at 1000 Words at the Movies, 770 P.O. Box 1000, New York, NY 10001.

**FOUR TIP**

## POURING PAINT

**A funnel is the cleanest way to pour paint from a can, but if you don't have one handy, try holding a pencil point-down against the edge of the can. The paint will follow its tapered tip in a neat line into the new container.**



## Wheel Easy

Talk about remodeling the wheelchair. Gargomix is a new, battery-powered version that makes short work of hauling heavy loads uphill. With a 12-gallon galvanized steel cargo pan, Gargomix can carry as much as 400 pounds up a 25-degree incline at a speed of 3 mph (there's no brake, so you'll need to control the weight loaded). If you make the throttle a 24-volt battery recharger overnight for 8 hours of continuous use. Available for \$299 from [www.countryhomeproducts.com](http://www.countryhomeproducts.com)



### Did You Know...



The debris from landfills decomposed in the United States each year is enough to build a 10- to 20-ft-high by 30-ft-wide aisle along the country's coastline. But according to the Deconstruction Institute, in Charlotte County, Florida, as much as 50 percent of a 2,000-square-foot wood-frame house—including roughly 8,000 board feet of lumber—can be salvaged if carefully deconstructed. Admittedly, reclaiming the materials is a labor-intensive process, but such deconstruction can be cost-effective, says the institute, saving the expense of new materials and disposal fees.

There is a need to develop a more comprehensive approach to the management of the environment, one that takes account of the needs of all stakeholders and the long-term interests of the community.

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**SMART SOLUTIONS FOR KITCHENS AND BATHROOMS**



Close-lined Shaker-style cabinets, dark granite counters, and a large apron-front sink make the modern-era kitchen even bigger. A dark stainless steel cabinet front adds another contemporary touch.

**C**ontemporary and inviting, the kitchen in Ed and Karen Maxwell's New Jersey home is proof that a tight budget doesn't have to be a roadblock to a smart renovation. "We had a seven-foot, 22-year-old hatchet where everything—appliances, counters, flooring—was shot, and just \$16,190 to spend," says Ed. The space was also a storage-poor that small appliances had taken over the counter space.

He also knows that the budget wouldn't allow for major changes like taking down walls, so he carefully limited the coating floor plan—accessories as rich as a *ture*—to a maximum of everything on the couple's wish list. Old, dark wood cabinets were replaced by pale maple ones from the same store. Removing an extra doorway to the hall created space for a new pantry cabinet, a home fridge, and a much needed wall appliance corner. Shifting the stove and sink to the other side of the kitchen allowed for a new island, a new refrigerator, and a new plumbing and electrical line. The careful planning paid off. "Now we have a custom-built kitchen with triple the storage," says Ed. "And it's a lot easier to work in."

A \$16,500 makeover turns a small, dated kitchen into a handsome, functional space

PHOTOGRAPHS BY KEITH SCOTT HORTON



Stunning, isn't it?  
Stunningly simple.



## HOUSE CALLS



### WHAT THEY DID

- 1 To clear more cabinet space, a 36-in.-wide doorway between the kitchen and a hallway was widened up.
- 2 This made way for a side-by-side refrigerator and a 36-inch-wide pantry cabinet. To the left of the fridge is a small appliance/cabinet carrier complete with a microwave.
- 3 To gain a much-needed extra foot of usable counter space for food prep and cleanup, the new stove was shifted 4 inches to the left and the positions of the dishwasher and sink were reversed, with the sink moved 4 inches to the right. Such minor adjustments made it unnecessary to reconfigure plumbing and structural lines, which cut renovation costs considerably.
- 4 Because the new pantry door swings out into the entryway to the dining room, the right side of the entry was enlarged 4 inches, creating enough room for people to pass through when the pantry door is open.

before



after



With the 22-year-old kitchen over 40 years old, but its original shortcomings were easily fixed: storage and counter space.

**STOVE:** Clearing a small appliance carrier, a side-by-side fridge, and floor-to-ceiling pantry cabinets along one wall forms a new work area and storage zone while improving the kitchen's overall efficiency. The new counter-top refrigerator was lowered to a bank-friendly 36 inches high for baking loads. Entry after cabinet maximizes wall space.

ILLUSTRATIONS BY JENNIFER

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## HOUSE CALLS



### THE DETAILS

Little refinements add a custom look you don't ordinarily find in a budget kitchen renovation.



1 The well-organized pantry started with stock units. The homeowner added the sliding doors, using extra cabinets and drawer sets from a kit he purchased online. He fabricated the drawer fronts and backs from 1/2-inch poplar and the bottoms from 3/4-inch plywood. He attached and installed the plywood cabinets on the door and the adjustable shelves.

2 Track lights set as a tandem, curved metal rail provide another contemporary touch and illuminate the dining area. Each track light fixture shows some of the other cabinet doors.

3 Frosted-glass panels give the stock unit above the sink the look of a glass cabinet. The homeowner customized it by installing two-colored lights inside to create the illusion of a window and by replacing wood shelves with glass. To keep off the cabinet, he used a plywood backing to install a band of grille, laminated by edge or maple stock and taped it with matching crown-molding.

4 Stock outboard ceramic tile set in a hardwood pattern has a textured finish that makes them look handmade. The pull-out board shows the stock stainless steel door pulls, and range hood.

5 Often a cabinet door would be damaged. The homeowner recycled doors in a subtle way by substituting cork for the unstable panel.

For more kitchen design ideas, trends, and products go to [www.thisoldhouse.com](http://www.thisoldhouse.com) or America Online Keyword: This Old House and select "Kitchen" in the Know-how section.



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# Ask

## THIS OLD HOUSE

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**RICHARD TRETHEWEY**  
Plumber & Heating Expert



**TOM SILVA**  
General Contractor



**BRUCE EBERSOLE**  
Landscape Contractor



**ADAM CARLINI**  
Marine Contractor

### FURNACE FILTERS

Some time ago I replaced the inexpensive fiberglass air filters in our forced-air heating system with more expensive pleated filters, which I thought would be more effective.

But the person who serviced my system said that the pleated filters add too much resistance to air flow through the ducts, making the system more expensive to operate. Is this true?

Don Gossard, Winston-Salem, N.C.

**Richard Trethewey replies:** You were correct in thinking that these standard spun fiberglass furnace filters don't help much to improve indoor air quality. The pleated filters that also improve soundproofing, which filter out are somewhat more effective, although the spun filter are a substantially charged to filter allergens are far better. Pleated filters add some resistance to the air flow, but if you notice some they're rated for the lower capacity of your furnace, you should be okay. For more effective filter options, including Scotch-Brite pleated media filters and electrostatic air cleaners, talk to a heating specialist.

Any filter pleated or not, will increase operating costs and reduce a blower's performance if you don't change it often enough. That's obviously the most important thing you can do to keep your system running efficiently.

### INSULATION ABOVE A DROP CEILING

At the back of our 130-year-old house there's a three-car garage that contains the laundry room and kitchen. These rooms get very cold in the winter because there is no insulation in the 2nd ceiling joists. To complicate matters, the original ceiling surface is plaster covered by a suspended ceiling. I want a warm house. What should I do?

Gina McGowan, Greenville, S.C.

**Tom Silva replies:** I'd start by getting rid of the suspended ceiling. It doesn't suit the age of your house, and it was probably installed either to cover up damaged plaster or in a misguided effort to provide some thermal comfort. Then I'd contact an insulation contractor who specializes in spraying polyurethane foam insulation. By using foam, you won't have to worry about venting the flat roof. And you'll get a lot of insulating value into your studio ceiling ceiling. It might be possible for the contractor to spray



Any filter in a forced-air system has to be changed periodically or it doesn't breathe right and interfere with air flow.

foam through holes drilled in the plaster. But frankly I think it'd be more inclined to remove the plaster, insulate with foam, and then replace or cover the ceiling with drywall.

### HART-STARK BOWERS

I am a 50-year-old who will make a garden and mow my yard. As I've gotten older, however, I've been having a hard time pulling the starter rope on my lawn mower. Is there anything I can do now to prevent this problem next year?

ETHELLE HODGINS, CHICAGO, ILL.

**Roger Cook replies:** The starter rope of a mower usually gets slightly easier to pull as the mower gets broken in, so it is possible that something is obstructing the rope or the blade. Following the direction in the owner's manual, try pulling off the pull-start housing and cleaning it out to dislodge



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TODAY TOMORROW

TOYOTA

**Ask** THIS OLD HOUSE

any debris that may be inside. This work is pretty easy to do, but you might also have a bent crankshaft, which will need to be fixed by an experienced small-engine repair guy.

Or you might consider buying a robot mower without a cord. You override your pick of blades to battery-powered models, as well as gas mowers, with electric starting. With that last type, all you have to do is fix the engine & hold down a safety-control bar and turn a key. This latter mowing feature raises the price about \$100 over an equivalent manual-start gas mower.

## MANAGED WITH POLICE BILLS

We have a problem with downs crating near the top of our chimney. There's constant caving in, seems to get looser as the wind comes down the chimney into our great store. How can we get them to stay away?

Sequentia Divisoria, Tagliandrea, S.p.A.



Even if sharp spines keep birds from landing on their favorite roosting spots.

**Tom Silver replies:** Gosh! Like your chimney offers an ideal roost—a spacious flat area that cats can't reach, with great views of the surrounding area. The worms of house shrewing through the chimney is something else the doves probably like.

There are several ways to stop roofing-pigeons' starlings, and house sparrows—the most common culprits in the U.S. The first solution is your cat: Is it closer the roofing area with apples to keep them from feeding. You could train your own apple strips by driving a lot of long strips through pieces of metal flashing. But you'd probably have better luck using manufactured strips fastened to the surface you want the birds to leave. One company, NoBirds (www.no-birds.com), makes strips out of aluminum. Another company, Bird-Stop (www.birdstop.com), makes a similar product out of polycarbonate. Or, better yet, call

stimulated electromyography device. If they don't have a pulse in their hand, they won't have a heart.

### STANDARD OUTLINE

I want to replace the locking curved gutters around the turret in front of the house. But my contractor says nobody makes curved gutters anymore, so I'd have to be like a cat from line of small, strange segments soldered together. What do you think?

Ludmila Kuvshinov, Detroit, Mich.

**Tam Silver revisited:** A feature as pertinent as a forest, particularly when it's at the heart of a non-forest-like poem. Silverman is to be done right. Besides, augmented guitar—well, I mark very well, I'm gonna to look—and don't look so good, either.

Polymeric outdoor gutters—called "raindrop" gutters in the trade—are well-suited. In a dry climate of yours, there's little risk in the moisture you will tolerate them—old ones by metal fabricators may warp on shrubs and screens. If you can't find a local source, however, of fixed-line components in the U.S., we offer raindrop gutters in polyethylene or aluminum lengths or in 3-ft sections. Here Lakeside Customer Center Works and Sheet Metal Inc., www.lakesideworks.com/copper-steel.com, or GreenMetal LLC, www.greenmetal.com. You have a choice of profiles, too. Kroyne, line, and half-round.

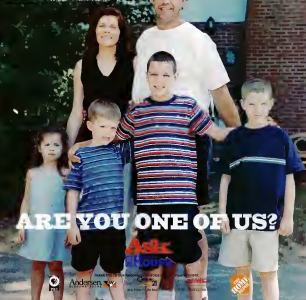
Specialty products like this are expensive, but this isn't the place to go cheap. If you pay now to do this work properly, you won't have to pay over and over again for repairs down the road. Best of all, your house will look as good as it should.



Curved "ruffles" pattern may be expensive and hard to find, but they are the best—and the best-looking—way to combine color from several motifs.

We needed help. We wanted to replace our old wall-to-wall carpet with a new laminated wood floor. We called Ask This Old House, and general contractor Tom Silva showed us the way.

JOHN, MARY, ANDRONE, JACK, BRENDA & CAROL KLEY  
WESTBORO, MASSACHUSETTS



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## Ask THIS OLD HOUSE

### LOADING & SHATING SYSTEM

We live in a porch home with a boardwalk hot water heating system. I was wondering if we should do anything when we leave for a winter vacation.

PAUL HOFFMAN, MONY BROOK, N.Y.

**Richard Trethewey replies:** The greatest risk you face involves water damage due to the supply pipes freezing or bursting, especially after a hard freeze.

Closing the main water valve is a good strategy for preventing your house from being turned into a swimming pool when a pipe bursts or a toilet/washer hose splits. That way, water damage will be limited to what water's already in the pipes. If you want to be extra cautious, you can drain the outside water systems, too.

Your heating system is separate from the outside water system, but if you drain it, too, you won't be in any way to heat the house. Then you'll have to drain everything to prevent freeze damage. That means toilets and traps, the hot water heater (if you have a furnace), the pressure tank (if you have a well), the clothes dryer pump, the water softener (if it has a tank), the hoses feeding the outdoor air conditioning in your neighborhood. You get the idea. To be on the safe side, I'd suggest that you leave the boiler on and put all the temperatures back to 60 degrees or so.

No matter what you do, have someone check on the place every week, then every couple of days or so when freezing temperatures are likely. Some homeowner's insurance policies won't even pay for damage caused by leaks or other system failures unless the place

is checked regularly. You can also have the house fitted with a temperature monitor that automatically calls an emergency number if indoor temperature drops too low.

### FORN COLUMN JOY

We can't figure out what to do about the rot on the 12 porch columns of our 1815 house. Fortunately, it's not structural. Someone replaced the bottom 18 inches of each column with sections of old railroad ties. It's the most creative the tax clerk's doing. What sort of wood should we use to make our options, and how should we secure it?

TON WILSON, TUNNUNGTON, N.J.

**Tom Gilve replies:** It's probably okay to leave the ties in place—they sure won't rot. Just cut out the rotten trim and box in the ties with medium-density overlay (MDO), an exterior-grade plywood board with a phenolic-resin paper MDO is stronger than standard plywood, takes paint very well, and isn't bothered by wet weather.

Use MDO to make the ties with flat stainless steel fasteners, which won't corrode. Secure all the joints with a marine-grade polyurethane adhesive and the same stainless nails. Marine adhesive is waterproof, holds the joint, and helps seal joints against water penetration.

While we're on the topic, let me warn anyone who's thinking about using pressure-treated lumber for your home or garden to think again. Greenish smells tell you it's on everything, contaminates soil and water, and probably causes cancer. You don't want to touch it, cut it, or have it exposed anywhere around the house, especially where your precious-haired babies are available.



Each of the porch columns on this 1815 Baltimore house has a railroad tie buried in its base (over)

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## ASK THIS OLD HOUSE

### REMOVING TABLE-SAW MUST

I own a wonderful 1934 Craftsman table saw, which I put in storage years ago. In the time, the saw-tooth blade developed some rust spots. What can I do to restore it?

BURT BLOOM, PITTSBURGH, Pa.

**Norm Abram replies:** Cast iron is a great surface for table saws, but it does tend to rust if not cared for, or if it has been stored where the humidity levels are high.

The best way to remove minor rust is to scrub with a disposable pad and mineral spirits. Then wipe off the residue and apply a lubricant to the top, including the iron-gauge plate, and the side of the saw's rip fence. I use 3-IN-ONE Tool Lube (even light coat) on my saw, but various other products might also work. Don't use automotive greases, which contain silicone. If silicone gets on wood, it will cause problems when you apply the finish.

Lubricating a table saw has another advantage: Wood slides across it easier, particularly when you cut through plywood. That means less effort and greater safety because the wood isn't as likely to bind up during the cut. I don't have a rigid schedule for lubricating my saw's top. I just wipe on more lubricant whenever I feel the wood seems to be dragging.

### STUCCO OVER KNOCK

The walls of my walkout basement are made of cement block, which has been painted on the outside. Can I stucco the wall to make them look better?

MICHAEL MULLER, BOULDER, COLORADO

**Tom Silva replies:** Cement block provides a good, solid base for stucco, but if you try to apply stucco directly to the wall, the paint will interfere with the bond. Stripping the paint would be a lot more work than it's worth. As you should find before galvanizing that tub's jacked diamond bolt to the walls with masonry fasteners. Then bore an 8-inch hole in the 4-inch-thick corner of the wall where the tub is located.

It's important to realize that stucco isn't waterproof. If your walls leak now, they'll eventually leak after being stuccoed. Go before

undertaking this project. Be sure that you fill any cracks in the wall using hydraulic cement. And, just as with any stucco, you'll need to put flashing along the edges of the stucco to prevent water from getting underneath and causing it to deteriorate.

### MOVING A STONE BUILDING

We recently found an old building made of stone and petrified wood. I would like to relocate it and turn it into a guest house. But I don't know if such a thing can be moved, and if so, what sort of company would do it.

ROCK SCHWETZ, BANGOR, ME

**Tom Silva replies:** North Carolina's Cape Hatteras lighthouse—which is over 200 feet tall and weighs 4,000 tons—was transported 2,500



Can the remains of this seagull building, built of brick, stone, and petrified wood, be moved to a new location?

feet a few years ago, so I guess anything's possible. I've also heard of stone churches, houses, and dorms being moved. The only real two things lots of money—relocating a stone structure is not cheap—and a mover who knows what he's doing. I can't help you with the first item, but for the second, contact the International Association of Structural Movers ([www.isam.org](http://www.isam.org)). Quite a few of its members are located in your state. You want someone who has experience successfully moving masonry buildings. ■

To send a question to ASK THIS OLD HOUSE, go to [www.thisoldhouse.com/askthoh](http://www.thisoldhouse.com/askthoh) or write to:

Ask This Old House  
The Old House Magazine  
1140 Avenue of the Americas, 27th floor  
New York, NY 10020

Include a complete address and daytime phone number. Published questions will be asked for clarity and length and may be used as video scripts. We reserve the right to refuse or edit questions and our site is not responsible for questions.

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## Flame Fighters

Choosing and using fire extinguishers

**A** fire extinguisher can be a lifesaver. Placed near an exit, an easy-to-grab spot, it can put out a small fire before the firefighters arrive, or at least suppress the flames while you escape.

All household extinguishers are classified A, B, or C (or a combination of these) on the label to indicate which types of fires—ordinary combustibles, flammable liquids, or electrical—you can use them on (see "Reading the Label," page 48). Many of the ones sold at home stores are classified A-B-C and fight all three types of fires.

The main distinction among home extinguishers is size. In most cases bigger is better, but sometimes the biggest extinguishers are too heavy to move over. (The weight on an extinguisher refers to the amount of chemical inside; the canister adds several more pounds.) There's also a difference between rechargeable extinguishers, with metal valves, and disposable ones, which have plastic valves. A rechargeable one will cost more, but refilling it once the pressure gauge shows that use or time has depleted the contents is still less expensive than buying a new disposable one.

The National Fire Protection Association ([www.nfpa.org](http://www.nfpa.org)) recommends an extinguisher for each floor. But no matter how many you have, nothing can substitute for the most important safety tool: a fire plan. Make sure everyone in the family knows how to get out in a hurry, where to meet outside, and how to call 911. Even if you think you've put out the fire on your own, don't cancel that emergency call. Leave it to the pros to decide if it's really out.

BY JOHN KELSEY PHOTOGRAPHS BY ERIC PIASECKI



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TALKINGSHOP's fire extinguishers

Using an Extinguisher

Fire safety experts advise you to learn how to use an extinguisher before an emergency arises. Check with your fire department to see if they offer homeowner training.

Keep extinguishers where you can see and reach them easily, near the main exit. That way you can fight the fire with your back to the door and make a quick escape if flames get out of control.

To help you remember how to use an extinguisher, use the acronym **PAIDE**:

- **P**ull the extinguisher's safety pin
- **A**im the chemical at the source of the flames rather than at the flames themselves, standing at least 6 feet from the fire (or as directed on the extinguisher label)



**P**ull the extinguisher's safety pin

**A**im the extinguisher at the source of the flames

**S**queeze the trigger and hold it

**S**weep the source of the flames until the extinguisher runs dry



**STOCKY READY**

A fire extinguisher can take preventative steps, reducing it to ashes when you need it. But if you're the type who targets the peaks of your garage periodically, consider this: our stocky system from MIRA, called **STOCKY**, is like a 1000-battery extinguisher inside of the extinguisher's pressure. If the gauge goes low, it flashes a red light and sounds an alert, reminding you to get the extinguisher refilled. It also sounds an alert when the extinguisher has been pulled down too much, so it would be during a fire. And this is a radio device, so the alarm beeps when the battery is low.

It also alerts the system and for when it's a Sharp's security system, the alarm system gets a signal when the extinguisher is used and it's in use, and it'll call 911. Cost is \$100 for the stocky system, plus a \$100 per extinguisher for the security system, not including fees and installation.



For more information on extinguishers, and fire on fire prevention, go to [www.firetalk.com](http://www.firetalk.com) or American Online Keyword: This Old House and type "extinguishers" in the search box.

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**25**  
ANNIVERSARY

FROM THE GROUND UP

## FOUNDATIONS

BY MAX ALEXANDER



### From the Ground Up: 25 Years of Building Experience

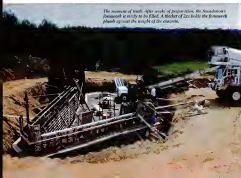
Since 1971, This Old House has set the standard for home construction and renovation. In this special series, the TOH team will tell you how they built a house right, then tie the foundation to the roof. In each issue, we'll highlight a different house system, showing you the best practices and materials and some new technologies we've got our eye on. By year's end, you'll know how to build the This Old House way.

**A** proper foundation does more than just hold a house above ground. It also keeps out moisture, insulates against the cold, and restricts movement of the earth around it. Oh, and one more thing: It should last forever. No wonder builders like This Old House pro and contractor Tim Slinn take foundations seriously. "Without a good one," he says, "you're sunk."

For Tim, "good" means multi-reinforced foundations with rod-bolts made of poured concrete. By comparison, all the laboriously assembled foundations of stone, brick, and mortar that have supported buildings for centuries—even the walls of concrete block that most builders were using when This Old House was launched 25 years ago—are just cracks and leaks gone down.

But a good foundation requires a lot more than digging a hole and pouring some concrete into forms. It must be tailored to its site like a custom suit, taking into account soil conditions, water tables, even the quality of the backfill. And so with a custom suit, every detail must be perfect: the base properly compacted, the formwork set up right, the concrete free of rocks. Neglect even one of these, and the most carefully poured foundation can fail. (Here's better method comes along [for processing new technologies, see page 47], here's how Tim builds a foundation that lasts.

*The moment of truth: After weeks of preparation, the foundation's formwork is ready to be filled. A thicker 2-in. hold the formwork plank against the weight of the concrete.*



"You can't build a good foundation on bad soil."

—TIM SLINN

### FOUNDATION FACTS

The weight of an average house  
**50 tons**

The weight of an average foundation  
**7½ tons**

Percentage of total project cost  
**8–15%**

**Foundations by material**  
**81%** poured  
**16%** block  
**3%** other

**Foundations by region**  
Midwest  
**89%** full basement  
Midwest  
**75%** full basement  
South  
**66%** slab  
West  
**63%** slab



## Building It Right

A foundation is forever, so it makes sense today attention to the details that ensure it will resist dry-ends-and-flores for as long as it has a house to hold up. Follow Tom Sides' building a house, he wants foundation walls that are plumb and level and free of the dislocations that are the sign of weak concrete. The Sidesite right shows how he wants a foundation to look before he starts framing.

The requirements for a slab foundation are similar: a sturdy footing and a vapor-proofed reinforced-concrete wall sitting on a bed of compacted crushed stone. The major difference is in the way the slab is constructed: poured against level forms. For a look at a slab foundation, go to [www.thisoldhouse.com/foundations](http://www.thisoldhouse.com/foundations).

**Filter fabric** Prevents soil from clogging drainage.

**Perforated drainage** (3-in. dia., spaced 40 in.) Intercepts groundwater before it can infiltrate foundation. Set 6 in. below top of footing, below footing down. Encased in filter fabric. A high water table.

**FOOTING** (3,000-psi concrete, 12 in. deep, no more than 12 inches wider than foundation wall). Level footing, bottom slightly lower for below the first line it must be placed.

**Keyway** Prevents foundation wall from sliding off footing.

### FOUNDATION WALL

(3,000-psi concrete, cast 10 in. thick, 12 in. above grade)  
Another look (every 2 to 3 ft.)  
Anchor mold to the foundation.

**Waterproofing membrane** (rubberized asphalt or epoxy-on latex)

**Rebar** (7 to 1) Resists bending and cracking. Horizontal rebar goes in the upper and lower thirds of the wall. Vertical rebar (6 to 16 in. on center) is required only in walls over 8 feet tall.

**Form line** Finish exposed ends on exterior face with hydraulic cement.

**Water table and drain membrane** Installed in areas with high water tables or rain-poor soils. Overlaid on top of drainage.

**Drainage** (2-in.-thick extruded foam) Blocks water from seeping into stream, keeps soil out, warms it.

**Expansion joint** (6 in.) Floorboard creates a gap to prevent the slab from cracking. Good sealant covers top of joint.

**SLAB** (2,000-psi concrete, 4 to 6 in. thick)

**Wire mesh** (4 by 6 in.) Improves strength and crack resistance of concrete.

**Insulation** (2-in. extruded foam)

**Rebar** (2 in. deep) Protects vapor barrier, acts like a sponge to speed the concrete's setting time.

**Vapor barrier** (3-mil polyethylene) Prevents the slab from sweating to the footing, which could cause the slab to crack.

**Ground H to 6 in. deep, compacted** Prevents water from underlaid of slab and reduces settling.

## Why Foundations Fail

- **Nonporous backfill.** Soils loaded with clay or organic matter hold water like a sponge, increasing the risk of foundation cracks when the soil freezes and expands.
- **Running the cure.** Concrete must cure slowly to reach proper strength (usually 3,000 psi). Keep it damp for at least three days by wrapping it in plastic, misting with water and other techniques.

- **Inefficient compacting.** If the slab is poured over crushed stone that hasn't been firmly tamped, it will likely settle or crack.
- **Interrupting the pour.** A concrete form should be filled in one go. If you stop and come back the next day to finish the work, there will be a "cold joint" between the fresh concrete and yesterday's work, which is likely to crack and leak.

## As Seen on TV

Great foundation ideas from TGH project houses

### PRECAST FOUNDATION

At the Acton, Mass., project, Tom Sides shared days off his tight schedule by using precast foundation panels for the addition. When they arrived at the job site, a crane simply lowered them onto compacted stone, where they were glued together with a polyurethane adhesive. "There were no footings, forms, or form line to deal with, and no disassembly to apply the panels," Sides says. "I was able to apply the panels to the existing foundation and integral four-foot insulation strip module." Sides says, "I was able to apply the panels to the existing foundation and integral four-foot insulation strip module." Sides says, "I was able to apply the panels to the existing foundation and integral four-foot insulation strip module."



### SLAB HEAT

Say "basement slab" and most people think "cold and damp." Not so at the Billerica, Mass., project, where Richard Trefenney, TGH planning and building expert, had a few hundred feet of PEX tubing (the same stuff used to heat radiant floors) looped on top of 1-inch foamboard and buried it in 6 inches of concrete. Once the tubing was hooked up to the boiler, the basement floor warmed up to a comfortable 56 degrees. At left, plumbing contractor Brian Dillo uses the same system to heat a walkway.

### ONE-STEP PIERS

While decks and small outbuildings may not need full foundations, they still require solid support from piers resting on well-buried footings. Typically, piers and footings are poured on separate days to allow time for the concrete to cure. Now Tom does it in one shot using funnel-shaped plastic footing forms filled with cylindrical pier forms. "As far as I'm concerned, there's no better way to make a concrete pier," he says.

**Special 20th anniversary Web site** Starting in January, we'll celebrate our 20 years of home improvement with a special section online. Go to [www.thisoldhouse.com](http://www.thisoldhouse.com) or America Online Keyword: This Old House.

## On the Horizon

New technologies for the foundations of the future

### SELF-LEVELING CONCRETE

A new chemical called a "super-expansion" plasticizer makes it possible to pour a mix that flows almost like water but retains structural integrity. Inversely, a top thin film allows the concrete to settle in the bottom before the concrete cures, resulting in a smooth floor. "You can look a truck up to the corner and pour the whole foundation," says Dr. Brian, executive director of the Concrete Foundation Association. "It just spreads everywhere." That means looking to pump or shovel the concrete where it's needed. And like water on the surface of a lake, the top of "super-expansion" plasticized concrete automatically sets first, a good start for flooring.



### FABRIC-FORMED FOOTINGS

Rather than laboriously building footings from cast-in-place concrete, some foundation contractors are using light-weight forms made of high-density polyethylene fabric. These flexible fabric systems conform easily to sloping and uneven sites, which simplifies construction, and the fabric stays in place as a built-in waterproofing membrane. The hugging sides of the Spillix footings also help to divert water away from the foundation.



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# 10 Most Common Wiring Problems



## 1. Overlamping

**What it means:** A light fixture has a bulb with a higher wattage than the fixture is designed for.

**Code violation?** No.

**Danger level:** High. The bulb's intense heat can scorch or melt the socket and insulation on the fixture's wires, which increases the risk of arcing—sparks that jump through the air from one wire to another—a clear source of electrical fire. The damage is visible and visible even after the bulb has been removed.

**Solution:** Stay within the wattage limit listed on all light fixtures made since 1985. For older, unmarked fixtures, use only 60-watt bulbs or smaller.



## 2. Uncovered junction box

**What it means:** Exposed wires where they are connected to one another, a common penalty inadvertently damages the wires or gets a shock.

**Code violation?** Yes.

**Danger level:** Minimal, as long as wires aren't visible, snatched.

**Solution:** Spend a few cents to buy a new cover and install it with the screws provided.



## 3. Lights flicker when it's windy

**What it means:** Flickering wiring in the weather head (the outdoor fitting where overhead power lines from the power line come into the house) is causing a short whenever the wind blows.

**Code violation?** No.

**Danger level:** High. Aside from the annoyance, the heated wiring can melt and start a fire.

**Solution:** Confirm the electrician's ability, which may require the weatherhead wire change.



## 4. Too few outlets

**What it means:** Heavy reliance on extension cords and power strips.

**Code violation?** No, grandfathered in. (Today's codes require receptacles within a foot of a door and every 12 feet thereafter.)

**Danger level:** Minimal, as long as you use heavy-duty extension cords, 14-gauge or heavier (the heavier the wire, the lower the gauge number). Under no circumstances (14-gauge or smaller) can extension cords be used in the house.

**Solution:** Add more outlets. Expect to pay an electrician about \$150 per foot for new outlets and double time for second-floor work. (There will likely be a minimum charge.) This work requires cutting holes in walls and ceilings to snake the wires. Electrician will patch the holes after he's finished the job.

## 5. No GFCIs

**What it means:** Increased risk of electrocution in wet areas, such as bathrooms and kitchens.

**Code violation?** No, grandfathered in. (Today's codes require GFCIs in bathrooms, kitchen, and outdoor outlets.)

**Danger level:** High.

**Solution:** Replace old receptacles with GFCIs (about \$20 each). It's a simple job that many homeowners do themselves. Replaces charge about \$20 per outlet. (They usually do a minimum job charge.) (Note: As an alternative, GFCI breakers (\$25) can be installed on the main panel. But the way they are installed, you have to go down to the basement to install it.

## 6. Overlamped panel

**What it means:** The panel contains more circuits than it's rated to handle, because too many single-pole breakers (one circuit) have been replaced with tandem breakers (two circuits) in one slot. (Tandem breakers aren't the same as high-voltage double-pole breakers, which take up two slots with one circuit.) A label on each panel specifies how many circuits the panel can accommodate.

**Code violation?** Yes.

**Danger level:** Minimal. It may become an issue when the house is being sold and an inspector looks inside the panel.

**Solution:** Add a subpanel with a few extra slots (about \$100), or if you're planning major home improvements, replace the existing panel with a larger model (\$300 to \$500).



## 7. Aluminum wiring

**What it means:** You have a type of wiring used in the 1950s and '60s as a cheap substitute for copper that is no longer considered safe.

**Code violation?** No, grandfathered in.

**Danger level:** High. Aluminum corrodes when in contact with copper, as connections between wires can lead to wiring fires.

**Solution:** Retrofit a dedicated wire not approved for aluminum wire (a pair sells for less than \$10) onto each copper-aluminum connection in tight locations. These cuts have a specific groove that stops corrosion while maintaining conductivity. Make sure any replacement wires and receptacles are labeled AL-cu compatible.



## 9. Ungrounded (2-prong) receptacles

**What it means:** Two-prong wiring has no way to safely conduct any stray current that escapes the insulation of the wires.

**Code violation?** No, grandfathered in. (Today's code requires grounded outlets and conductors.)

**Danger level:** Minimal, as long as you don't use an extension cord. (A three-prong plug in a two-prong receptacle. Doing so could destroy the device you're plugging in and increase the chance of electrocution.)

**Solution:** Replace two-prong receptacles with properly grounded three-prong ones. If wiring allows it, do "Old Wiring" below. Also, be careful using three-prong receptacles with a GFCI circuit breaker to make sure they're grounded. Please say hi to your L.

## Old Wiring: Is It Safe?

Today's standard household wiring is a plastic sheathed, insulated three-wire cable, universally known by the trade name Romex. But the vintage copper wiring in many older houses works just as well as the new stuff, as long as it's in good condition and hasn't been altered in a way that violates code. Here are some wiring systems you'll find in older homes.



### KNOB AND TUBE

The earliest residential wiring system has a self-covered hot wire and a bared wire, which are parallel to a bared ground wire.

**Caution:** While knob-and-tube wiring is a good system, it's not as safe as modern wiring. It's not as fire-resistant as modern wiring.

**Code:** Cannot be grounded or replaced into a grounded wire. It's not a code violation if it's too much current flows through them. Remove or disconnect any circuits covered with building insulation.

**Solution:** Add a subpanel with a few extra slots (about \$100), or if you're planning major home improvements, replace the existing panel with a larger model (\$300 to \$500).

For more help on electrical projects, go to [www.thisoldhouse.com](http://www.thisoldhouse.com) or American Online Keyword: This Old House and select "Electrical & Lighting" or the Knowledge and Learning.

## 8. Backstabbed wires

**What it means:** On some switches and receptacles, when pushed in the back are more likely to come loose than those entered around some terminals.

**Code violation?** No. The practice is allowed even for new construction.

**Danger level:** Depends. At a minimum, loose wires can cause a receptacle or switch to stop working in the worst case, they can start a fire.

**Solution:** Check for backstabbed connections by extending a switch or receptacle from its outlet box. If one is backstabbed, there are likely to be more. Release the wires and attach them to the appropriate screw terminals on the receptacle.



## 10. Plug falls out of receptacle

**What it means:** When contacts in a receptacle no longer grip the prongs firmly.

**Code violation?** No.

**Danger level:** High. Loose contacts can cause arcing, which can ignite dry wood and dust.

**Solution:** Replace the old receptacles as soon as possible. (A new one costs about \$5.) Many homeowners find themselves doing this as they sell.

**Caution:** Receptacles that change about \$10 or \$15 per outlet, although there is a likely to be a reduction charge for several jobs.



### APPROVED CABLE (BX)

The successor to knob-and-tube, a flexible three-wire cable that has metal wires, which are insulated with self-covered rubber. The sheath provides a ground so grounded receptacles are easy to install.

**Caution:** While BX cable was used extensively in a metal sheath, BX cable is not as fire-resistant as modern wiring. It's not as fire-resistant as modern wiring.

**Code:** Cannot be grounded or replaced into a grounded wire. It's not a code violation if it's too much current flows through them. Remove or disconnect any circuits covered with building insulation.

**Solution:** Add a subpanel with a few extra slots (about \$100), or if you're planning major home improvements, replace the existing panel with a larger model (\$300 to \$500).

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## Shaker Furniture

With their clean lines and simple shapes, these pieces work in a variety of interiors

**L**igh and I grew up going to flea markets. One of the shows we did when we were teenagers was held at the Shaker Village in Old Chatham, New York. We spent many hours wandering around the old buildings, exploring the rooms, studying the furniture, and wondering what it must have been like to live in such austere surroundings. Everything about the place had an appealing, practical order about it. It felt tranquil, almost spiritual. It felt as though life happened on a scale both. Even now, when I look at Shaker furniture, I see it as the contrast of these buildings and the quiet, orderly life of the Shakers.

But Shaker furniture is far from old-fashioned. It's right at home in modern settings, too, which accounts for its continuing popularity today. Shaker pieces look good in a traditional home and fit as well with contemporary interiors. And, as Leigh puts it, these clean lines also look good in an urban modern setting, like a downtown loft. In fact, Shaker furniture has a strong influence on Danish Modern design as well as some other contemporary furniture styles. And because Shaker pieces are often painted—yellow, blue, red, and green—were favorite colors—Shaker furniture can easily complement a collection of folk art.

### CLEAN, SIMPLE LINES

Shaker furniture is, above all, simple. That's what the makers intended. Because of their religious beliefs, the Shakers frowned on decoration, so they stripped down classic furniture forms to the bare essentials. The pieces are less, lighter, stronger, and graceful. In this economy of line is an elegant simplicity—an austere beauty based solely on form. And then there's the level of craftsmanship. The Shakers believed that every act of labor was



Meets old and new: A pair of contemporary Shaker-style chairs flank a 17th-century painted table in a room decorated with other vintage collections.

Artists experts Leslie Kend and Leigh Kend are hosts of vinyl of a new TV series on PBS called "The World of Design: Style, Art, and Living" (see more on [www.wired.com](http://www.wired.com)). Leigh (left) is in photo above; Leslie is in photo below. American Shakers in Marlinton. (Left) is photo of the American Shakers' collection at the Shaker House in New York City.



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an act of worship and that God was guiding their hands when they worked. The craftsman's conviction and purity of purpose can be seen in the intricate details that make Shaker furniture so special.

The Shakers made furniture from the 1770s on, producing the iconic tables, chairs, cupboards, desks, clocks, chests, work tables, and bedroom storage forms they needed for their largely self-sufficient communities. The classic Shaker piece—the one that we most gazed by collectors today—went back from about 1820 to 1840. In later years (and as late as 1947), the Shakers made some of their furniture for sale to the "outside world." You could even order lidded-back chairs and rockers from the Shakers' own catalog (immediately marked with a gold "Shaker's trademark"). These factory-made pieces often lack the superb craftsmanship of their earlier work and bring lower prices today. Surprisingly, some late-19th-century Shaker furniture looks downright Victorian—furniture do-or-die and all.

#### WHAT TO LOOK FOR

The very best Shaker pieces can bring a small fortune, but you can find original Shaker furniture, lamps, and baskets for less than \$600 or so if you don't go for top-quality pieces. As with most antique furniture, value is based on condition. A piece with an original painted finish in good condition is worth far more than a similar piece that's been refinished. According to Shaker furniture dealer John Keith Russell, of John Keith Russell Antiques Inc. in South Salem, New York, "As with any other antique, one should inspect an object carefully, except for the seat material (on chairs), which were out and was often replaced." Russell says that prices for lidded-back chairs typically range from \$500 to \$2,000 for a Shaker-made factory chair and from \$1,000 to \$25,000 for a handmade chair (ask for the Shakers' own use). "Genuine tables, furnishings, case pieces, and tall clocks bring the highest prices."

If you want Shaker style but your budget can't handle the cost of



This entrance hall and the dining room here of one furnished with antique Shaker pieces, including a growth-back mottled-green bench, a yellow-painted wooden chest, and a large storage cupboard.

an antique, you might want to look at the wide array of Shaker reproductions that are available. These range from handmade recreations of original pieces that cost as much as a real antique to furniture-store items that evoke the Shaker look and style without being actual reproductions. If you're handy, and have the time, you can even buy some well-crafted Shaker kits that give you good-looking furniture at a bargain price.

**LEFT:** Tall, thin, and more refined than its country cousin, this lidded-back wooden chair (1830) is a typical Shaker piece.

**MIDDLE:** The elegant stool is another familiar Shaker form. This one is a slightly later wing stool, circa 1825-1875, with a drawer to hold sewing supplies.

**RIGHT:** The simple flat-panel design on this yellow-painted cupboard, circa 1840, was a hallmark of Shaker design.



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## Questions & Answers

#### REMOVING SPATTERED PAINT

I bought this chair at an antique shop because its original paint was in such good shape. Then my kids splashed a few drops of white latex paint on it. How can I safely remove the white paint? And can you tell when the piece was made?

PAUL FUSSELL, NEWSPRING, COLORADO

**LEIGH & LESLIE KING REPLY:** Your Shaker chair dates from about the 1820s or 1830s and was probably made in Pennsylvania. It would have been relatively inexpensive when made, with fresh and stenciled decoration that brightened the hours of the day. The red-and-black green painting on the seat was meant to give the look of an expensive wood. No technology. Such chairs were usually sold in sets of six or eight. The value of this one, which is in nice condition, is around \$270. If it were part of a set of six, the price would be around \$900 per chair.

Since there wasn't a good finish on the white latex paint (especially if it's a water-based formula) and the underlying finish, our colleague Robert Field, who runs Antique Connoisseurs in West Orange, New Jersey, suggests removing the spatters with an 8-10 inch brush. Try to keep the paint off the sides and top. And cut time, sand the kids to cover the furniture with plastic before painting.



#### ART POTTERY VASE

I wonder what you can tell me about this unusual-looking ceramic vase. It's marked "Stangl" on the bottom.

DANIEL KIMBALL, ALLENSTOWN, PA

**DAVID RAG REPLY:** Stangl's best known as a maker of early-20th-century ceramic dinnerware, artware, and gifts. It took over the Fager pottery works in Pennsylvania. Now Jersey, in the late 1920s (most questions were later moved to "Stangl"). Your Stangl vase is likely from the 1920s or 1930s, when shells were a popular motif for the company's serving dishes and food accessories. It's probably worth somewhere between \$50 and \$100.

#### SEND US YOUR FINDS!

Submit a question on furniture, furnishings, style, or design, or for an opinion on a treasure you've found, to [find@find-it.com](mailto:find@find-it.com) or write to:

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Include a complete address and daytime telephone number if you're submitting photos of an object. Please don't let us use your photo without your permission. If you're a member of the IFODS (International Federation of Old Dealers Society), please let us know. Published questions will be edited for clarity and length and may be used in other media. Please send any other materials submitted with us to our member. We reserve the right to remove or alter submitted material without notice to you.

enjoy Stangl's best visible production. Most valuable are the porcelain bowls, we have sold these at auction for around \$1,000 apiece.

**David Ragl:** A specialist in art and Shaker furniture and American art pottery is owner of David Ragl Auctions in Larchmont, New Jersey.



#### VINTAGE RIDING TOY

I found the old one side on wooden toy at a store in Oregon. Any idea who might have made it and what its value might be?

KENNETH KALIN, SEATTLE, WASH.

**NOEL BARRETT REPLY:** Your toy was made by Glen Ltd., probably in the late 1940s or early 1950s. This firm, Massachusetts, by company design back in the 1930s and in 1950s, was a subsidiary of the original owner. In general, wooden toys made in the 1940s are not as collectible as the 1930s, and your toy's value has been more like \$100. It is an attractive piece, and in my opinion it's worth about \$75 to \$100.

**Noel Barrett,** owner of Noel Barrett Antiques and Auction Ltd. in Jacksonville, Pennsylvania, is an antique auctioneer specializing in vintage toys.

#### MINIATURE CHEST COLLECTION

I've been collecting these miniature chests for years. I assume they are someone's samples—is that right?

PATRICIA LANE, STUNTS, FLA.

**LEIGH & LESLIE KING REPLY:** Given their samples are exact replicas of full-size furniture that have been reduced in size in order to be easily transported in collectors' cases. They were made in the early part of the 20th century to showcase not only the precise design of a furniture piece but the wood, finish, and craftsmanship. These drawers (which you wouldn't be able to open) are likely made up of four drawers, so they should have four or five drawers. Your pieces are most likely 18th-century or 19th-century furniture but are still highly collectible. Small pieces like these are most popular on the part of a collector to hold a man's clothing and make for a woman's jewelry. A larger playhouse-sized piece can be put to charming effect as a child's toy or a man's chair.





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RICHARD TRETHOWEY,  
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Tom Silva explains to  
how to remove  
door that's too big to  
remove door frame.

**Replacing an Interior Door**

with This Old House general contractor Tom Silva

BY JOSEPH TRUINI PHOTOGRAPHS BY BRIAN WELDER

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# Anatomy

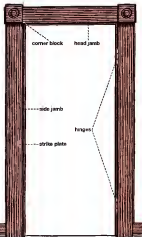
**R**eplacing an existing door with a new one is just about as easy as it sounds—you use the old door as a template to cut the new door to size and to outfit it with hinges and a lockset. Then you replace it in the existing jamb. No fuss, no muss.

Switching out the door in an old jamb is a great solution when you have a door that's badly warped or damaged, or when you want to upgrade all the doors in your home to improve quality or change style. We asked Tom Silve, The Old House general contractor, to take us through the steps. He's hung and replaced so many doors he's lost track of the number. As a result, he's got a few tricks to make things go faster and better.

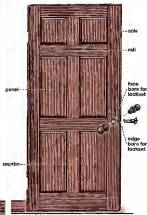
ILLUSTRATIONS BY GREGORY KENNEDY

Before you begin, measure the width and height of the old door (the thickness of all but the oldest interior passage doors is standardized at 1 3/4 inches). Bring these dimensions with you when you buy the new door—"blank"—unless it's a "prehung" door; it won't be surrounded by a jamb or drilled out for the lockset. Doors come in just a few heights—60 inches is the standard—but a wide range of standard widths. Look for one that exactly matches or is slightly wider than your old door. Be aware that door manufacturers use shorthand to describe a door's width. So a 3-0 (pronounced "three-on") door is 3 feet, 0 inches, or 36 inches, wide—not 30 inches.

## EXISTING JAMB



## NEW DOOR



# Step by Step: Replacing a

1

## Remove the old door

- Stand on the hinge side of the door and remove the pins from the hinges. Always start at the bottom hinge and work up so the door doesn't topple over onto you.
- If a pin won't come out by hand, gently tap it out with a hammer and screwdriver (screw).
- Have a helper support the door as you begin to remove the top pin.

**TIP:** To avoid losing the pins, drop them back into the hinge leaves on the doorjamb.



5

## Chisel out for the hinges

- Lay a protective pad on the floor and stand the new door on edge, with the hinge leaves facing up.
- Next, chisel out for the hinges (these are called hinge mortises). Hold the chisel vertically and tap it with a hammer to outline the mortise. Then make a series of closely spaced cuts as deep as the thickness of the hinge.
- Next, hold the chisel at a low angle with its beveled face flat against the wood to prevent it from digging in too deeply when completing the mortise.
- Lightly tap the chisel with the hammer to chip away the waste wood a little bit at a time (move).

2

## Mark the new door for trimming

- Remove the lockset (if one exists) and hinges from the old door. If moving the lockset, slide how it goes together.
- Lay the new door across a pair of sawhorses and rest the old door on top, aligning the top and the lockset edge of the old door perfectly flush with the new door.
- Trim toward the old door with a pencil to indicate where the new door must be trimmed down to size (move).

**TIP:** Correct clearance for an interior door is 1/2 inch on the sides and top (a jamb) and 1/4 inch at the bottom (a flooring gap).



6

## Screw on the hinges

- Check the depth of the hinge mortises by test-fitting a hinge leaf. It should be flush with the door edge. If necessary, use the chisel to pare away a bit more wood.
- Set the hinge leaf into the mortise. Use a drill and center bit to bore pilot holes through the screw holes.
- Screw the hinge to the door (move).
- Trim-fit the door in the opening. Check that it closes without binding and that there's proper clearance (1/4 inch) between the door and frame. If not, plane the edges.

**TIP:** If you accidentally cut a mortise too deep, slip a thin wood or cardboard shim behind the hinge leaf.

# Interior Door



3

## Get the door down to size

- Score the pencil marks on the new door with a sharp utility knife and straightedge to help prevent the wood from splitting when you cut it with a circular saw.
  - Get the door to the correct height using a straightedge guide and a circular saw (sawed). If you need to remove more than 1 inch, take half off the bottom of the door and half off the top.
  - Trim the door to width in the same manner.
- TIP:** If removing less than 1/2 inch, use a hand plane instead of a circular saw.



7

## Drill for and assemble the lockset

- Mark where the strike-plate hole meets the door edge.
- Position the template supplied with the lockset on this mark and mark for the deadbolt and latch. If reusing the old lockset, take measurements from the old door.
- Drill the doorbore from both sides with a 2 1/2-inch hole saw. Cut the latch's edge bore with a 3/4-inch spade bit (sawed).
- Paint or stain the door, as desired, and let dry.
- Insert the latch assembly into the edge bore and trace around it with a utility knife. Chisel out a shallow mortise inside the outline.
- Screw the latch to the door, then install the doorbore.



4

## Lay out the hinge mortises

- Lay the old door back on top of the new door, aligning them so that all four edges are flush.
  - Line up a combination square with the old door's hinge mortises and transfer their locations to the new door (sawed).
- TIP:** Mark the cut lines for the mortises with a utility knife; it produces a much more precise line than a pencil.



8

## Hang the new door

- Hold the door in the opening and interlock the hinge knuckles (sawed).
  - Once all the hinges are aligned, have a helper insert the hinge pins.
  - Test the door, making sure it swings smoothly and that the latch engages the strike plate on the doorposts. If necessary, reposition the strike plate.
- TIP:** If the door rubs when closed, slightly bend out the dead bolt into the recessed inside of the strike plate.

# Tools



- Hand plane
- Square
- Straightedge guide for circular saw
- Combination square
- Circular saw
- Cordless drill with extra-long Phillips tip
- 2 1/2-inch hole saw
- 3/4-inch spade bit
- Chiseling bit
- Tap measure
- Hammer
- 3/4- and 1-inch-wide chisels
- Utility knife

For an archive of *Homeowner's Handbook* including the July/August 2002 issue's edition on installing a lockset, go to [www.thisoldhouse.com](http://www.thisoldhouse.com) or *America's Online Keyword: This Old House* and select "Homeowner's Handbook" in the Know-how section.

# Buyer's Guide: Doors

**T**here are three basic types of interior doors, based on their construction: hollow-core, solid-core, and frame-and-panel.

Each comes in a variety of styles. Hollow-core doors are the least expensive and most common in new construction, but they don't have the feel, sound-proofing qualities, or longevity of solid doors.



## HOLLOW-CORE

Narrow, solid-wood perimeter with corrugated "honeycomb" matrix in the middle, covered on both sides by a thin skin of plywood or molded composite made to look like raised panels (shown here). Lightweight and inexpensive at \$25 to \$50.



## SOLID-CORE

Interior is made up of a skin of composite material or wood blocks glued together that is covered with a hardwood door skin of this plywood or molded composite. Much heavier than hollow-core and more soundproof. Costs between \$75 and \$250.



## FRAME-AND-PANEL

Made from solid wood—stiles (vertical) and rails (horizontal) surround solid-wood or plywood panels. The most elegant door, though prone to seasonal movement. Cost: \$250 to \$600 for a hardwood raised-panel door; less for softwood.

## Door Style

Most flush doors go with modern styles, such as French or International. Flat-panel doors, with their wide, flat rails and stiles, are best for homes in the Prairie, Craftsman, or Spanish Colonial style. For mid- and late-19th-century houses, such as Greek Revival, Italianate, Queen Anne, and Shingle Style, choose a door with four raised panels. And for early American houses, such as Georgian or Federal for a more recent Colonial Revival, look for five or more raised panels.

Also, make sure to match the casing and knobset to the door. A simple door style should go with simple trims. Conversely, decorative, raised-panel doors are best with elaborate casings and door handles.



# LETTER FROM THIS OLD HOUSE

## Welcome to the Party

W

BY BRUCE IRVING  
FOR SENIOR EDITORS

Just when you thought the winter of 1979? Getting your driver's license? Beginning college (or is it?) Reconnecting your first love? Or, come to think of it, were you even born yet?

If you happened to be in Boston, in front of a TV set tuned to (of course) PBS, you saw the birth of home-improvement television when *The Old House* debuted in a 13-part local series. No one—not even its creator, Russ Moxness—could have predicted its popularity or the impact it would have on television. Twenty-five years and 16 hours inside *LOH*, that little show has become the centerpiece of a multi-media brand that includes not only this magazine but three TV series (*The Old House*, *Ask The Old House*, and *Find It*) and two Web sites ([www.thisoldhouse.com](http://www.thisoldhouse.com) and [www.find-it.com](http://www.find-it.com)). And it's amazing in the second hour of history that we're really, really fascinated. Today there are hundreds of TV shows, magazines, Web sites, books, and videos for home and garden enthusiasts.

By the time I joined *TOH* in 1983, the show was the most popular half-hour series in PBS history and already a classic. But what struck me immediately was the way that Russ and the guys consistently looked into the future, peering the envelope in an industry not known for innovation. Richard Tretheway (that one's a common contractor saying: "I'm happy to try something new—as long as my dad did it.") For *TOH*, it's been a case of harnessing the best of our forebears' ways, be it technique or architecture, while showcasing new approaches that we hope will stand the test of time.

In that spirit, our 25th anniversary year will be as much about looking forward as about celebrating the greatest moments from our past. For the fall home project we'll purchase a classic American Seaway in order of repair and rehabilitation. We'll prepare it for another century of life, using time-honored techniques alongside new ones—and tomorrow's—technologies. And when our splendid house is finished, proceeds from its sale will go to a building-arts scholarship meant to address the dearth of young people joining the trades.

In the magazine, we're introducing two new anniversary features. "From the Ground Up" will detail how technology has changed and continues to change the way houses are built, highlighting a different home "system" each month, from foundations to window finishes. "25 Years of Innovation" will report on the evolution of appliances, tools, and materials used around the home—what they looked



The *TOH* crew celebrates 25 years. (Clockwise from top) general contractor Tom Silva, landscape contractor Roger Cook, plumbing and heating expert Richard Tretheway, host Kevin O'Connor, and master carpenter Norm Abram.

like 25 years ago, what's state of the art now, and what's in store for the future. We'll also feature special 25th anniversary coverage in the October issue. Meanwhile, this month on [thisoldhouse.com](http://thisoldhouse.com), we go live with a dedicated section that includes guides for homeowners of all skill levels, a preview of the TV project, and much more.

Finally, on anniversary celebration wouldn't be complete unless we included our viewers and readers. In August, Norm, Tom, Richard, Roger, and Kevin will embark on a cross-country road trip to meet homeowners and share their tricks of the trade with them. We'll update you on the schedule—here and on the Web—on the two-down-ones.

So welcome to the party. We hope you'll enjoy it as much as we plan to. ■

### Coming in the March Issue

- Easy upgrades for your kitchen
- Landscaping at the TV project
- Footproof fixes for wet basements
- Kitchen countertops
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A trip to the salvage yard offers treasure for everyone, as the guys from the *This Old House* TV show discovered. From left: Roger Cook, Kevin O'Connor, Steve Adams, Richard Dethlefsen, and Don Jolly with some of their finds.

# TREASURE HUNT

**W**hether they're called junk shops, architectural antiques stores, or demolition depots, salvage yards are a treasure hunter's dream. These cavernous warehouses are packed with neatly organized collections of old house parts: row upon row of paneled doors and porcelain sinks, cases filled with glass doorknobs and patinated hinges, and backyards littered with iron benches and elaborate front gates. Some stock high-end reclaimed pieces side by side with lower-priced reproductions. Others hawk their wares online, allowing you to browse for bargains without leaving your living room.

These businesses make it easier than ever to find period parts to restore an old house or put character into a new one without paying for custom work. But while rummaging through a salvage yard is fun, the vast array of choices can be daunting. So on a recent trip to New England Demolition and Salvage in Wareham, Massachusetts, we asked the *This Old House* team for advice on how to tell the trash from the treasure.

Salvage yards are a gold mine of vintage house parts. The *TOH* crew shows how to separate the gems from the junk

BY AMY B. HUGHES  
PHOTOGRAPHS BY KELLER & KELLER



# Architectural Features

**T**he bulk of the salvage yard business is architectural elements—carved mantels, wood doors, and double-hung windows. Condition and price vary widely. Some dealers sell only new-mint-condition or restored pieces ready for installation; others sell dusty, paint-caked items to do-it-yourselfers willing to put in a little sweat equity in order to pay less. Many dealers offer turnkey refinishing and installation for a premium.

"Keep in mind that cleaning, fitting, and repairing an old piece is a lot of work," says TOH general contractor Tom Silva. "But you're also prolonging the life of some finely crafted piece that's been around for years."

TOM SILVA

## INTERIOR DOORS

### HOW TO SHOP

- Bring doorway measurements: Note the width of one side jamb to the inside of the other, and then floor-to-finish-to-head jamb dimensions in several places, and note the largest numbers. Also note the direction of the door swing and which side the hinges sit on.
  - Look for interior trim: A rich wooder than each measurement to give you a full overview of sound, or one that can be cut down to size.
  - Choose stained or stripped doors, when possible, to avoid dealing with lead paint.
- WHAT TO AVOID**
- Twisted, cupped, or warped wood.
  - Loose filler and nails.
  - Cracks, holes, or gouges in the wood, unless you plan to paint over big repairs.
  - Doors/noises that don't match the location or type of lock on the jamb. "You don't want to buy a door drilled for a marine lock to install in a jamb with a tubular lock," says Tom.

**EXPECT TO PAY**  
\$60 to \$100 per door

## WINDOWS

### HOW TO SHOP

- Bring dimensions: For a rough opening, measure between the floor-to-top chord and from the finishing sill to the window border. For a replacement sash, measure between the side jacks for the sash and measure the height of the sash itself by opening the window. If both sash are missing, measure from the sill inside the window to the header. Check both dimensions to these places and note the smallest.
- Look for a window that requires the least amount of repair to maintain, glazing, and joints.
- Consider curved, bay, protective stained-glass and leaded-glass windows as accent pieces in a new house.

### WHAT TO AVOID

- Irregularly cut: Blowing each side, weights, or pulleys will be hard to match.
- Mismatched glass: "A single window with stained glass will stick out like a sore thumb in a room full of plain glass windows," says Tom.

### EXPECT TO PAY

\$40 to \$100 for a double-hung and \$150 to \$1,000 for stained glass or other accent windows

## FIREPLACE MANTELS

### HOW TO SHOP

- Bring dimensions of the fireplace opening, surround, and wall.
- Stick to the safer wood-mantels or noncombustible stone. Old mantels are typically small and may not meet local fire codes—wood mantels usually require a section of chimney from the finish.
- Look for a mantel that matches the style and size of your house, or one that incorporates existing molding profiles in the room.

### WHAT TO AVOID

- Exceptionally large and ornate mantels: "You don't want it to overpower the room," says Tom.
- Undersize mantels: Though you may be able to bump up the height with brackets under the top and extend the center with panels, even so, you'll need to trim a new shelf inside.

### EXPECT TO PAY

Angled or T-bar \$450 to \$1,000 depending on wood, condition, size, design, and whether it has a fireplace. Marble mantels start at about \$2,000.

**WARNING:** Salvaged items are often coated with lead paint, so be sure to cover up on how to safely strip and dispose of this stuff.

## TOM'S TIP

To check that a door is straight, lay it on one of its bottom corners and look down the edge. Press this angle; you'll easily see any twisting or warping.

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# Plumbing Fixtures

**S**alvage yards are famous for stockpiling vintage sinks, claw-foot tubs, and cast-iron radiators. Plumbing and heating fixtures are typically sold "as is." So before you buy, keep in mind that the fixture will likely need to be repaired, refinished, or—most difficult—retrofitted to comply with modern plumbing codes. "You don't want to end up with a five-foot-long claw-foot plaster in the backyard instead of a period soaker in the master bath," says TOH plumbing and heating expert Richard Trethewey.

RICHARD TRETHEWEY



## TUBS

### HOW TO SHOP

- Bring your bathroom dimensions, including those for the tub recess, if there is one.
- Check its footprint, and see how it fits. "You can't test an old-time foot too far for comfort," says Richard. They're perfectly angled for reclining and hold more water than a modern tub of the same length because the overflow drains are higher (typically 16 to 18 inches above the tub foot; contemporary with 12 to 14 inches today).

### WHAT TO AVOID

- Rust spots, dents, and missing feet, which are particularly hard to match.
- Peeling paint on the outside and worn, stained glass on the inside. If a tub does need refinishing, it's best left to a professional.
- Take note on cast-iron or enameled overflow. "That's a flooded bathroom waiting to happen and a real pain in the butt plumbing-wise," says Richard. The overflow should be at least 2½ inches in diameter.

### EXPECT TO PAY

\$150 to \$1,000; refinishing starts at about \$600

## BATHROOM SINKS

### HOW TO SHOP

- Keep in mind the style of your bathroom. Highly decorated baths can accommodate a curvy or elaborate sink, but contemporary baths call for clean lines.
- Consider space and installation constraints. Wall-mount sinks typically take up less room than pedestal sinks, but they are heavy and require support in the wall framing.
- Materials matter. Porcelain sinks tend to be finer than enameled cast-iron ones and typically don't require refinishing.

### WHAT TO AVOID

- Rust spots, cracks, chips, and deep scratches in cast-iron sinks. Like tubs, they will probably need to be refinished by a professional.
- Decaying (cracking lines) on porcelain. This can't be remedied.

### EXPECT TO PAY

Upward of \$180 for a cast-iron sink, \$800 to \$1,200 for porcelain.

## FAUCETS AND FITTINGS

### HOW TO SHOP

- Measure the distance between the centers of the faucet holes on your sink and make sure any design you buy can fit the space. Faucet stems are typically 4 inches apart, but some go as wide as 8 inches or more.
- Match faucet connectors with those on your water supply valve stems.

### WHAT TO AVOID

- Incomplete sets. Mixing faucet parts are almost impossible to find.
- Easily scratched finishes. "Cold things can be repaired, but this is a job of low net gain," says Richard.

### EXPECT TO PAY

\$170 to \$400 for a fully-featured faucet set with handles.

## CAST-IRON RADIATORS

### HOW TO SHOP

- Figure out if you need a single or bi-metal radiator. Radiators that have only one side open at the bottom can carry air used for steam systems. Hot water systems must have two pipes—one that feeds the radiator and a second that recycles cooled water back to the furnace—and the sections need to be connected at the top. Steam systems can also use bi-metal radiators.
- Try to match replacement with others in your house. Most yards stock tall, ornate Victorian-era radiators as well as expert, utilitarian designs from the 1940s and '50s.
- Replace rusty or broken radiators with ones equal in size and output.

### WHAT TO AVOID

- Throwing good money after bad. Bids to yards that test their stock for leaks and handle the dirty job of sandblasting units to remove old paint, then priming and repainting. Avoid those who say "no"—they may lack the function as poorly as the ones being replaced.

### EXPECT TO PAY

\$10 to \$30 per section for radiators tested for leaks, slightly more for ones that have been refinished.

## RICHARD'S TIP:

Consider using a period sink that has separate hot and cold water faucets only in a powder room. Otherwise, when you want a warm splash in the morning, you'll have to stopper the drain and mix the water in the basin—or risk getting scalded.



# Decorative Details



## DOORKNOBS

### HOW TO SHOP

- When looking for a single replacement knob, bring along its mate. "You don't want to spend all day rifling through a box of hardware only to discover that the knob you bought doesn't fit on the spindle," says Norm.
- Bring the measurement of your door's thickness and compare it with the span between the knobs to ensure a snug fit.
- Choose cast-iron knobs sets, including the spindle and the set screws that attach it to the knob.

### WHAT TO AVOID

- Extreme wear and tear, such as deep scratches, chips, pits, and dings.
- Antique knobs on doors that need to be locked, because most don't have the original key.
- Glass or brass knobs that have some loose bits or are cracked, or worse—if it can't be fixed.

### EXPECT TO PAY

About \$25 for a pair of simple white porcelain knobs and up to \$180 for a single ornamental cast-iron set.

## HINGES

### HOW TO SHOP

- Consider the age and style of your house and choose historically correct designs or pick ones that echo other decorative details in the house.
- Keep ability in mind. Use heavy, substantial hinges on doors and use decorative butterfly hinges for cabinets.
- Know which side your door is hinged on and whether it swings in or out. Some old hinges are not reversible.

### WHAT TO AVOID

- Incomplete sets. Make sure you have both hinge plates and the center pin and that the hinge pivots smoothly.
- Mismatched finishes. You'll rarely find more than a few plates in the same pattern and finish. For a matched set, take your desired set to a professional plating shop and have them refinished together.

### EXPECT TO PAY

About \$25 for a pair of plain cast-iron door hinges, upward of \$150 for some fanciful cast-iron butt hinges.

## TRIM

### HOW TO SHOP

- Look for unpainted or stained pieces that don't need to be stripped to avoid dealing with lead paint.
- Don't expect to find enough to drain or under-meat. Salvaged trim is best for restoring a single casing or short length of damaged molding.
- For larger amounts of a salvaged profile, take it to a network shop for duplicating (note: Most shops require a minimum run of 100 feet).

### WHAT TO AVOID

- Dry rot and rotworms.
- Aggravately warped profiles—the details may have been sanded off.

### EXPECT TO PAY

\$4 to \$10 a foot.

## OLD GLASS

### HOW TO SHOP

- Choose a piece that's at least smaller in width and length than the window opening so the glass can move as the wood expands and contracts.
- When you know to trim the glass to size, choose a piece a couple of inches larger than you think it will fit—equal to cut.
- If you can't find a pane at the right size, you may have to buy an entire sash and remove the glass yourself.

### WHAT TO AVOID

- Cracked or etched. Buy extra glass in case you make a mistake. "The applicator that rubs the glass cleaning solution is hard to cut," says Norm.

### EXPECT TO PAY

About \$5 a square foot.

### NORM'S TIP

To trim a glass pane, lay a glass cutter in between or close to it and score the glass. Then, using the closed glass edge, snap the pane across the worktable. Use a utility knife to cut the pane around the edges.



to lend instant provenance to a reproduction cabinet. "The age and rust of antique hardware add character to a new door or hutch," says TOH master carpenter Norm Abram. "You simply can't replicate that kind of surface texture and charm."

# Outdoor Ornaments



ROGER COOK

Unlike new patio furniture and clay pots with flawless finishes, the rusty iron urns, graying wooden trellises, and crumbling terra-cotta statuary you find at salvage yards are prized for signs of age. Flaking paint and stress

fractures from years of exposure to the elements help such ornaments blend with all but the most modern landscape designs. "It doesn't fit in the garden if it's shiny," says TOH landscape contractor Roger Cook. "You want garden elements to look like they've been there forever."



## WOOD TRELLISES AND ARBORS

### HOW TO SHOP

- Determine how you're going to use them. "A single strategically placed trellis arbor best growing vine is perfect for obscuring an unsightly view," says Roger. A well-placed one is more than for a door screening.
- Look for redwood, cedar, mahogany, or teak, which hold up better than most plants or poles.
- Consider condition. Trellises and arbors usually come "as is" with peeling paint and graying wood. To preserve the wood and to avoid rot, knock off loose paint with a soft wire brush and apply a coat of clear deck sealant.

### WHAT TO AVOID

- Severely rotted or insect-damaged wood.
- Weak structures—though even timbers can be used to shore them up.

### EXPECT TO PAY

\$20 to \$400 for a single flat trellis, up to \$5,000 for a carved wood rose arbor with ornate scrollwork.

## ORNAMENTAL IRONWORK

### HOW TO SHOP

- Look for designs that reflect the character of your landscape. For a formal garden, try an ornate cast-iron bench or a metal-legged table set. A more rustic location will look better with a simple wooden bench or wrought-iron table.
- Be creative with limited quantities. You can use short sections of iron fencing to break up long expanses of a stone wall. For instance, giving visitors a peek at paintings on the other side.

### WHAT TO AVOID

- Pieces that have been aggressively refinished or sandblasted. They may have faded a well-worn patina or bricked off delicate details.

### EXPECT TO PAY

\$400 to \$2,000 for a cast-iron bench, \$200 to \$500 for a 3-foot section of iron fencing.

## PLANTERS

### HOW TO SHOP

- Consider color, condition, color, and patina to determine whether it fits with the character of your garden and its decorative elements.
- Check whether you're buying a reproduction or an antique—many yards will both. Reproduction stone urns typically weigh less.
- Look for plant containers that can serve as containers or screens for the corners of a garden. Filled with plants of varying heights, colors, and textures, they become focal points.

### WHAT TO AVOID

- Antique may not be for you if you're not willing to give them extra care. Fragile containers should be moved indoors—or at least onto a covered porch—to keep them from cracking faster in winter.

### EXPECT TO PAY

\$100 to \$500 for a cast-iron or terra-cotta container, into the thousands for sculpted granite, marble, limestone, and some ornate cast-iron containers.

For a list of well-stocked salvage yards around the country, turn to page 104.

For more on [antiquehardware.com](http://antiquehardware.com) or [www.thisoldhouse.com](http://www.thisoldhouse.com) or America Online Keyword: This Old House and type "salvage" in the search box.

A contemporary Craftsman borrows the best from the past

# A NEW OLD HOUSE

Old houses feel different from new ones, and there's good reason: Finely crafted details and wood finishes that have been burnished by time give these spaces charm and character. Some homeowners recapture the past by buying a fine old home and rejuvenating it. Others, like Tom and Sandi Waldron, want that old-time warmth and personality wrapped up in an efficient new space

designed with their needs in mind. The Waldrons' house, set in suburban Minnesota, evokes an early-20th-century Craftsman bungalow, with beamed ceilings, wirecoted walls, glass-front bookcases, and built-in window seating. The house feels old, but the small-scale floor plan typical of an original bungalow has been opened up to suit the way the Waldron family lives today.

"We love it when people come to visit," says Sandi.

"They always end up asking, 'Is it old or is it new?'"

*(continued on page 80)*



**ABOVE** The exterior, with its prominent front porch supported by square columns and divided by a low railing, has the look of an early-20th-century Craftsman.

**OPPOSITE** The central dining room opens up to the living area on one end (and the kitchen on the other). Built-in glass cabinets, a classic bungalow feature, serve as room dividers.





GRAB LIFE BY THE HORNS



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At any end of the living room, built-in window seating conceals image displays and provides a view of the backyard. Built-in cabinets on either side of the fireplace hold seven components and sheet music. The fireplace's mantels are adorned in a contemporary update of classic Craftsman silhouettes.

#### STARTING FROM SCRATCH

To combine the warm, aged character they wanted with the modern amenities they needed, the Whitsons turned to Tim Fuller and Ryan Anderson of SALA Architects in Minneapolis, who specialize in both new residential design and older home restoration. Both came to their first meeting armed with pages torn from magazines that showed Craftsman features the admired. "I mentioned a house like the bangalow my mother grew up in, with a nice front porch, beautiful wood detailing, and plenty of nooks where kids could hide," she says.

This was focused on practical features like extra baths, walk-in closets, central air, in-floor heating, a basement workshop, and plenty of garage space. A vacation large enough to hold two parties and ponds for concerts was also a must. ("We met at piano lessons," says Ford.) In addition, the couple wanted a big, family-oriented kitchen with a separate dining area for entertaining. They also requested a first-floor master bedroom suite—both as a sanctuary from their three children now and, thinking ahead, as a convenience in their older years. "We plan to be here forever," says Sarah.

### The Plans

In early 20th-century bangalows the dining and living areas were open to each other, and the kitchen was isolated at the back of the house. Here, all three rooms flow into one another to promote family interaction and accommodate large-scale entertaining. The first floor also includes a master bedroom suite, a grand room, a mudroom, and a laundry/breaking room. The second floor holds three children's bedrooms, a bath, a study, and a reading/TV alcove off the hall.

#### First Floor

#### Second Floor



BRIAN FLAHERTY FOR ENR



#### A BLEND OF OLD AND NEW

Taking design cues from older homes they had worked on, architects Fuller and Anderson responded with a plan that incorporated the strong, simple lines and woodwork details of a bangalow into a comfortable, 3,000-square-foot space. Downstairs, the open floor plan comprises a multipurpose living room and kitchen linked by a central dining room. Separating the three regions are control openings with columns and glass-front display cabinets. "This is a typical Craftsman feature—the divider—which was originally used to link a small living and dining room together to make them appear larger," says Fuller.



Craftsman, a mix of old bangalow, and Danish modern design give the kitchen a Craftsman feel. Blended black granite countertops allow the woodwork to take center stage.

Instead, the kitchen's gas-burner capture was meant to be seen from another room in the kitchen, the music tub holder echoes the living room's fireplace surround. A blackboard was built into the wall to make it accessible to the children.

"It is a bangalow in every light." Bacon dividers addressed a practical concern of the Whitsons, as well. "With three kids, food and then went to eat through the house at all times, to keep a wonderful eye on things," says Anderson.

Because the small rooms of old bangalows are not conducive to rising prices, the architects conceived a 13½-by-27-foot living area with two porches at one end, a central seating area by the hearth, and a wonderful sunroom area at the other end. "There's plenty of room for an audience," says Anderson, "but the space also can be arranged for intimate seating." A small wing off the living room holds the master bedroom and a bath. Utility here is grouped off the kitchen, where a mudroom leads to the laundry/breaking room, the garage, and a downstairs workshop. The system was designed with three children's spaces, a bath, a study, and an alcove off the hallway for reading and watching TV.

The biggest challenge facing the architects was fitting the spacious new home into a compact, one-and-a-half-story bangalow shape. "Early-twentieth-century bangalows were only about 400 to 1,000 square feet," says Fuller. To support the smaller size, they brought the rafters down and lifted it with a single steel column. The exterior features a prominent Craftsman-style front porch supported by square columns. Though shingles grace the exterior of many old bangalows, Whit and Sarah chose a shingle-covered siding to weather the Minnesota winters. "The intent was to evoke an older home in spirit, if not in exact detail," says Fuller.



# CRAFTSMAN DETAILS

## AND FINISHES

Early Craftsman houses owe much of their beauty to the rich woodwork details displayed throughout—standout features in the Wildman home, as well. Practical built-ins—bookshelves, window seats, cabinets—were originally positioned as space-saving furniture replacements, and architects Fuller and Alden used them everywhere, from bedrooms to living rooms. “They look decorative, but they’re purely functional. We tapped every bit of dead space and used it for storage,” says Fuller. Built-ins were handcrafted in cherry or oak, then assembled onsite, just as they would have been 120 years ago.

Another Craftsman staple, quarter-sawn oak, is used throughout for the flooring and window-sillings for a unified look—hard because oak can withstand wear and tear best. In true period style, the floors, window casings, and other wood finishes in the Wildman home would have been finished in a dark stain. For Sandi, warm light accents. She painted when the fine-line windows arrived with white stain (called intensely dark)—and called a halt to the work. After rounding the windows and applying a new mix of white and cherry stain, the crew achieved an aged, golden color more to her liking.

Vintage Craftsman leaders are also evident in the pocket doors of the study, the casinet-style casings in the living and dining rooms, the prominent crownwork around doors and windows, and the vertical screen panel enclosing the stairway. Head carpenter Jim Tobin and his uncle, carpenter Tim Sabin, built the vertical screen's balustrade using a blind-nailing technique so no nail holes would be evident after installation. They gained a new appreciation for the work of men-of-the-century craftsmen and their hand tools while applying water-sanding throughout the house. “The biggest thing is making sure that the drywallers put in flat walls,” says Jim. “A chair and against a cracked wall really shows.”

In the two years since it took the homeowners and design team to achieve their architectural vision, no detail was too small to labor over. Even the children's bathroom is adorned with drop-everything that evoke the Craftsman style. Such fine, painstaking



The fine-line casework is hidden behind a period-correct screen of quarter-sawn oak, typical wood for later Craftsman designs. A decorative chest board conceals the bookcase in one. Throughout the house, the casework toward the windows is left unfinished by the contractor—just as the master bedroom.



work doesn't come cheap, of course. But even as construction costs reached \$490,000 (the design team added approximately \$18,000 more), Tim and Sandi still couldn't imagine cutting corners. “This is our dream,” says Sandi. “We wanted a warm and friendly family home where we could spend the rest of our lives—and that's exactly what we got.” ■



## The Beauty of Built-ins

Built-ins—on handy today as they were a century ago—were used throughout the Wildman home to maximize storage and provide the beauty of fine furniture. “In keeping with the clean and simple Craftsman design philosophy, built-ins made a smart use of space,” says project architect Tim Fuller. “We explored the idea to give the Wildmans lovely plenty of storage and to preserve open floor space.”

- 1 A dark-stain smart use of dead space between the kitchen and the windows, providing a handy place for cutting meat and piping bills. Deep recesses, a hand-drawn mirror, and beveled metal pulls give it an antique look. The granite top echoes the kitchen counter tops.
- 2 To keep clutter in check, a magazine rack was built into one of the cabinets flanking the living room fireplace, which has windows between the music case and the master suite. It is also used to hold sheet music.
- 3 The master bath's vanity shows off pendant glass that's typical of Craftsman design, setting the piece on legs adds to its handcrafted quality. The mirror is framed in the same hand-drawn molding and throughout the house. The surface-mount sink is set in a simple counter top.



For more articles on home design and architecture, go to [www.johnsullivan.com](http://www.johnsullivan.com) or [AmericanStyleMagazine.com](http://AmericanStyleMagazine.com). This Old House and select Design & Planning in the Know-how section.



THIS OLD HOUSE  
**TV Project**  
 { Concord, Massachusetts }

TOH general contractor Tim  
 Sabin (left) joins local Karm  
 O'Connor as Sabin is  
 shaping their rail molding.



# PUSHING AHEAD

As work on the Concord cottage nears completion, the TOH crew figures out how to make the most of a small space

BY MAX ALEXANDER PHOTOGRAPHS BY BEVAN WALKER



**ABOVE:** The converted cottage retains the look of a barn, complete with decoration left and from doors (inspired by those that have been fitted out with windows to bring in light and views).

**BELOW:** Tim Sabin, Karm O'Connor, and Kevin O'Connor install a double window that will open up the living room addition.



**A** YEAR AGO THE BARN BEHIND JANET and Jeff Benson's house in Concord, Massachusetts—the site of the current TV project—seemed an unlikely candidate to become a house. For one thing, it was small, with a footprint of just 20 by 26 feet. For another, it was too much like, well, a barn. Inside the 1874 unbuilding there were no interior walls except for a former horse stall in one corner.

Enter Holly Cranley, the architect who was given the mission of turning this brawny little building into a comfortable, low-cost cottage for Janet's parents. With the spaces earmarked for the master bedroom suite, everything else—the kitchen, living room, dining room, and powder room—had to be shoehorned into the barn's existing first floor. Even for a retired couple with modest space needs, that was a tall order.

#### BUILDING AN OPEN PLAN

Cranley's first challenge was creating as much new space as possible while adhering to the town's building code, which limits expansion on such historic structures to 25 percent of their "volume," or cubic footage. Adding a second story to open up the second floor added a few cubic feet, so Cranley had space left only for a 12-by-12 foot addition (overstalls—just enough for a cozy living room).

Her second challenge was how to create distinct areas without losing the open feeling of the barn. Removing the walls to add interior walls is a good idea in any adaptive reuse—the conversion of a structure once originally built as a home, such as a school or a hospital—says Les Posner, who specializes in restoring historic New England barns and homes. "People walk into a barn and they love the big space, and say, 'Wouldn't that be wonderful as a house?'" Then they start cutting it up one way or another.

Cranley's solution was to split the floor plan down the middle. In one half she grouped all the small but essential spaces—bathroom, coat closet, half bath, stairwell, and boiler room (since there's no basement). The other half is an integrated kitchen and dining room, the two areas separated by an archway and a half wall topped with sliding windows that will lend visual access to the area while subtly concealing the two rooms with light.

"An open plan is the best way to give the illusion of more space," says Cranley. So to further avoid a "valley warm" effect, she specified pocket doors for the transition from the dining room to the new living room addition.

## The Plans

- 1 A 12-by-12-foot living room addition extends the cramped space.
- 2 New windows along the front of the building let in light to give the downstairs an airy feeling.
- 3 Pocket doors disappear to open up the living areas but slide closed for privacy.
- 4 A half wall topped with sliding windows between the kitchen and the dining area allows light to pass through, making the kitchen feel bigger.
- 5 A corner with a windowed alcove and a walk-out porch makes the master bedroom feel larger.

### First Floor



### Second Floor



"Most of the time the doors will be open—and invisible," she says. The doors also add flexibility, allowing the living space to double as an extra bedroom.

#### EXPANDING THE VIEW

Another measure Cranley took to make the cozy cottage feel more expansive was to create a window plan that will bring the outdoors in. New large, energy-efficient windows will brighten the space on the front and sides of the house, replacing small, cramping windows. Small windows were common at old barns because windows were expensive, so small drafts, and could injure animals if broken. Cran-



**above** The 12-foot square living room addition is small, but a French door with multiple, thin-louver windows, makes it feel bigger. A corner with a walk-out porch and three windows makes the master bedroom feel larger.

ley also brought more light into the house with architecturally appropriate dormers on the front and back, and a skylight hidden on the back roof where it can't easily be noticed.

But to keep the barn's character intact—an important consideration for Cranley and the homeowners in blurring the cottage into the neighborhood—some of the new windows will be the same small size as the original saving windows, mostly in bedrooms and utility spaces. In addition, TOFF general contractor Tom Silva's crew is duplicating the original exterior window trim details, such as the rehearsed scroll brackets that support the header caps.

Such details give old houses their identity, says TOFF master carpenter Norris Adams. "A good carpenter will give a barn new life



but also retain its character," he says. In Concord that includes the original sliding barn door, which will go back on the gable end (albeit as a decoration) with two new windows cut in to bring in more light. Initially Norris thought he'd have to build a basement in his sleep, but as clear construction he was impressed by the original door's sturdy mortise-and-tenon construction. "It's well made and needs nothing more than light sanding and a coat of paint," he says. "Why try to duplicate it?" ■

**Watch this:** A series of the Concord cottage project. Daily images captured as our five photo crews show the progress of the job from start to finish. Go to [www.bitchinnews.com](http://www.bitchinnews.com) or America Online Keyword: This Old House.

## HVAC SYSTEMS FOR TIGHT SPACES

The final challenge of fitting all the necessities into the barn's small space fell into the lap of TOFF general contractor Tom Silva and TOFF plumbing and heating expert Richard Testabene, how to incorporate heating and cooling systems without crowding the already cramped spaces. "With no basement and very few interior walls, ductwork wasn't an option," says Testabene. That ruled out using a forced-air duct furnace as well as a conventional central air-conditioning system.

Instead, Richard brought about seven sleek wall gas grates. He used the rooms, he chose a split system, which has an outdoor condenser and a wall-mounted unit in each

room. A compact, wall-mounted condensing boiler provides hot/cold air to the first floor and bathroom radiators (apart from wall-mounted wall units). "In the past, designing these small boilers to stay quiet has been an issue," says Richard. "You've got all this noise with a small amount of water, so it's like a law firm." Condensing boilers are highly efficient. They capture more heat from the water in the gases, which would normally be lost up the chimney. To do this they actually have to operate at a lower temperature. As a result, says Richard, "this unit is about as quiet as a refrigerator. It's a whole new way of thinking about boilers, because you really can put them anywhere."



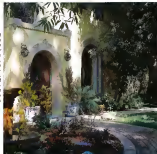
**below** Testabene (right) shows Silva the advantages of wall-mounted heating units.

- Plans finalized
- Drafting completed
- Systems installed and connected to house from street
- Second floor lowered
- Dormers built
- Barn stairs removed

A CRUMBLING ESTATE FROM THE  
1920s GETS A NEW LEASE ON LIFE

# HOLLYWOOD COMEBACK

The original  
garden of the  
1922 home, which  
was razed after  
the Alhambra  
Palace in Granada,  
Spain, had been  
ravaged by earth-  
quakes and neglect.  
A thorough and  
expensive resto-  
ration brought  
the house up to date  
and restored its  
romantic elegance



After eight months of house hunting on a limited budget in the tony Mt. Washington section of Los Angeles, Adrienne Morea stumbled on a sad hulk of an abandoned house. "From the road, I could see three 20-foot-high archways leading to an inner courtyard," she recalls. At the end of the winding drive to the front of the house, she then spotted

BY MARY BETH DUBHR  
PHOTOGRAPHS BY MICHAEL WESCHLER  
STYLING BY SUNDAY HENDRICKSON



Carved-out walls with  
my silk chairs and an elegant  
plaster sculpture—things  
made to replace the original  
which had been carried off when  
the house was abandoned—help  
recreate Hollywood's past in the  
present. The rug was specifically  
chosen to complement the original  
white face, the concrete floor

[illegible]

## Elyse F



The acril' woolf on the dining room walls was designed by the homeowner and painted by a faux-finish artist with metallic colors.

a spectacular stained-glass window, barely visible through the overgrown vegetation. Her curiosity piqued, Adeline clambered over an imposing entry gate.

"It couldn't believe any place," she says. "This wasn't just a house, it was an old-time Hollywood estate." Indeed, the two-story city-centre house with manic lawns was in the Mediterranean style of architecture popular in 1920s. (Built in 1921, it was modeled after the Alhambra of glory were long past, but the dispirited 3,793-sq-ft on a full acre—now a rental jungle—that included an Italian, tropical garden, and thickets of bamboo and pink grass around the discovered little-coral pines, double-flowered figs, and a pool surrounded by overgrown red, coral green trees.

Especially to see the inside, Adremsen crawled through an open window. "You could tell that the house had been through some crippling earthquake," she recalls. There were vines growing through cracks in the walls, the 9-foot ceilings were water-damaged, and the wood floors were rained. "Vacant for over a year, the house had also been completely razed." Materials were missing, things damaged where light fixtures used to be, and there wasn't a toilet, a sink, or an electrical outlet left. "It was more a shell than a house, but it had accessible bones," says Adremsen, who is now *personal* in the grounds. "There's been thousands upon thousands of renovations. I wasn't afraid to take a peek."

But with the bank-owned property in narrow and 10 days every dream being sold, Adreone was told it was a long shot. Not one to be discouraged, she made an offer anyway. "I had a feeling that the house and I were meant to be," she says. It was a contract that would pay off. Days later, it was hers for a fraction of the \$1 million each owner hoped to get in the open sell for.

But restoring an earthquake-damaged house isn't an easy undertaking. Every floor, wall, and ceiling has to be carefully examined by a structural engineer and repaired if possible or rebuilt if not. To Adreanow's relief, many of the walls were 12-inch-thick concrete—the place was built like a fortress. That is, all except the cumbious brick walls of two upstairs master rooms and bath. "You could see

to the outside in places," says Adelman, who surmises that this part of the house was hit hard by the 1906 Northridge earthquake. Ironically, these were the only rooms that had withstood another big quake, in 1933. So, unlike the rest of the house, they had never been rebuilt to any of California's increasingly tougher seismic codes over the years.

To perform the work, Adamski brought in structural specialist David Towse, who replaced the failing masonry with steel frames and stone walls that help resist the lateral forces of an earthquake. California code also requires that all major components of a home be joined together structurally. To comply, Towse drilled bolts into the home's slab foundations and made engineered connections to floors, walls, ceilings, and roof to limit movement. With the house up to code, Adamski felt much safer, "but I still had a pretty long to-do list," she says.

Over the course of the six-month renovation, cracked walls were replastered, broken windows were repaired (including the ornate, mahogany frame of the stained-glass window that first attracted Adair to the house), stolen masonry was replaced with other period materials or custom reproductions, and missing moldings were added to vintage style. "I wanted everything to look like it had always been there," says Adair.

Although it took some doing, she tracked down a specialist who could duplicate the back stone plasterwork on the water damaged walls of the foyer. "It's a dying art," says Adams. Similarly, the deteriorating stucco on the exterior was repaired and faithfully finished in the original, troweled texture of the 1930s.

Lately, not of the few Mediterranean-inspired details that consumed was the cool, green concrete floor in the living room, dining room, and foyer. Installed in the '60s, the poured concrete had been pattern-stamped, while salt was to mimic concrete tiles, complete with watermarks for grout. And to Adriano's delight, the original terra-cotta floor in the kitchen, though worn, was salvagable, as was architectural rubies. There included a marble (it originally held a gas heater), a piece of plaster (shaving, and combs as the shape of poorly fairs) and candles, these were apparently intact." says the

To give the master bath the flavor of the period from scratch, "It looked like someone had begun a finished," she says. "There was a hole and wasn't much else." Adamec had a platform built for a rescaled pedestal sink with antique copper line another orthopedic station, was half old, a sign corner were a plywood wall. Unable to find



**UPPER** The patented track pins secure the original 1.5-foot-high cushion floor.

**Notes:** The pond is surrounded by both cypress and olive trees. The homeowner's wife-and-son's jumpout, a gravel-studded cement ball, colors the fountain.

are the room's remain-  
place around which  
reels everything, the real  
Except for some chig  
1996

Adams had to start somewhere but had never before in Jacson, but not a new claw-foot tub and more. The floor, probably a marble, the rest would seem to match the

Her post exercise and postprandial warm-up the master bedroom's elegant brass walls. The floor-to-ceiling arched doorway leads to a fire market and, the home-owner added the copper surround and decorative glass inserts.



original marble but determined to save it, she covered the plywood version of the floor with cream-colored Telvex tile. "Marble and tile is an interesting mix, and the tile echoes the home's Mediterranean design roots," says Adreano.

While fixing, replacing, and restoring have been Adreano's all-consuming passion since she bought the house seven years ago, she plans to leave her own imprint. "Every owner should contribute at least one architectural enhancement," she says. "This will be a Mies van der Rohe-inspired spa for the overworld. It needs a fitting addition to such a luxurious house." ■

#### TELL US YOUR STORY

Did you renovate your house and do some of the work yourself? If so, we'd like to hear about your project.

Please send copies of before and after photos, a floor plan (we cannot return any materials), and a brief description of the work you did as:

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The date was set as the master bath is a reproduction with sophisticated style. It was on a second-floor platform and in cream-colored Telvex tile.

## 25 Years of Innovation



1979



2004

The shape remains the same, but in terms of performance, today's range is leaps and bounds ahead of its 25th counterpart.

## STOVES, COOKTOPS, AND OVENS

**A** lot has changed in the American kitchen in the last quarter century (had not just because men wear the apron more often than they used to.) When *This Old House* first hit the airwaves in 1979, the standard American kitchen featured a four-burner electric range—preferred because an oven had just figured out a way to make gas ovens self-cleaning—and, for a lucky few, an over-the-stove microwave. Accents gleamed and harvest gold still ruled the day, and only the most serious cooks had the latest technology: a convection oven, which could cook a 12-pound turkey in under three hours.

What a difference 25 years makes. The high-end kitchen of 2004 is outfitted with a non-brown restaurant-style range shielded in stainless steel, and hardcore cooks wouldn't consider anything but "dual fuel" (equipped with gas burners above the high heat, electric

ovens below for pinpoint control). Today's smart pump out more than to cook everything faster, they up assist guides to sealed burners boost and smooth cooktops, and are able to use because better mechanics and the replacement of pilot lights with electronic igniters have cut the risk of fire. If the 1979 range was the equivalent of a hatchback, today's is an SUV.

As with any evolution, change is ongoing. So even as we wist through the latest developments, among them a range that doubles as a refrigerator and a microwave oven that uses halogen light to brown food, upwards-and-developments folks are busy—dare we say it?—cooking up a whole new world of improvements. Turn the page for a look at how stove manufacturers have adapted to America's changing needs and tastes, and what new developments are on the front burner.

—Dan DeGleno





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# Norm's Notebook

## Keeping Your Hands Clean

**A** lot of people ask me how to get dried polyurethane—glue or foam—off their hands. The answer is, you don't. Once on, it has to wear off. And seal that you'll just have to live with dirty-looking glue smudges on your hands. (Seven for wood are almost as bad.)

I've found that the best way to keep my hands clean when using these products is to wear disposable latex gloves. They're a lot less clumsy than standard work gloves and don't soak through when I'm working with stains. (If you're sensitive to latex, try gloves made with nitrile or another rubberlike material.)

Before I put on these tight-fitting gloves, I rub my hands with baby powder or talcum powder. It makes the gloves easier to put on and take off, and more comfortable to wear, too. Just be careful to keep the powder away from your work and to wipe it off the outside of the gloves if it gets in the wood; it can prevent glue or the finish from adhering.

There's a lot of variation in the durability of disposable gloves, so you may have to try several brands until you find one you like. I get mine from a marine supply store, but they're also available at most stores and through woodworking supply stores. Once you've found some you like, buy a box of them so they'll always be on hand.



## Sharpening a Spade Bit



**M**ost anyone who works on houses eventually accumulates a bunch of spade bits, but most of them are stone dull because they're never sharpened. That's a shame, because these bits are so easy to use up.

A basic spade bit—I'm talking about the kind without scrollflutes on the perimeter—has two cutting edges angled very slightly at opposite directions. The goal is to sharpen each edge at equal angles while maintaining the existing angles.

First, clamp the bit in a vice. Then, using a flat handrest file about 1/2 inch wide, take five strokes on each edge, pushing the file in the direction shown in the drawing. Now turn the bit around and take five strokes on the other edge. Always make each stroke the same length. When that's done, place the file flat against the flat face and with one stroke remove the burr that forms on the side opposite each edge. Finally, take two strokes on each side of the bit's point to remove those cutting edges, too. (They're also angled in opposite directions.)

A few minutes of attention is usually all a dull spade bit needs.

## No-Measure Drawer Slides

**W**hen I build house frameless cabinets, I like drawers with full-extension slides. But to work properly, each pair of drawer slides has to be mounted at exactly the same height, front and back. It's possible to shop them by carefully measuring and marking, but I have a method that's faster, easier, and more accurate. I goop-on a pair of scrap sticks that are long enough to position the uppermost slides.

Just clamp one stick vertically to the side near the front of the cabinet, and the other one toward the back of the cabinet, and rest the slide on top of them. After the slide is secured to the side of the cabinet, use the same sticks to mount the slide on the opposite side. For the next lower set of slides, simply cut down the original sticks and repeat the process.

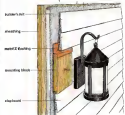


## Norm's Notebook

### Mounting Base for Wood Siding

Ceplboard and single siding present a problem when it comes to installing light fixtures, bare spigots, and even decorative push buttons. The siding offers no plank mounting surface. And just screwing fixtures on top of the siding doesn't look very good. A much better solution is to cut away the siding and attach a mounting block directly to the wall sheathing.

The block should be just a little thicker than the double point of the siding and slightly wider than the base of the fixture. As for height, cut the block so its top and bottom edges line up with the siding corners as shown. (Some carpenters notch the siding to fit around the top of the block, but this looks clumsy to me.) Also, make sure to cap the block with metal Z flashing to water won't get behind it.



### How to Remove a Doorjamb



I know that most of the remodeling jobs we do on *The Old House* call for removing doors—including the casing and the jamb—so we've gotten pretty good at it. Here are the steps we follow to keep damage to a minimum.

First, release the pins from the hinges and set the door aside. Then, carefully pry the casing all one side of the opening with a flat bar. Then you move to the wall, holding the jamb to the surrounding framing. Just slice through five shanks between the back side of the jamb and the studs with a reciprocating saw and a 6-inch hypoid blade. Now go to the opposite side of the door and pry the casing off the wall, but leave it attached to the jamb. Once the casing is free, push it and the jamb out of the opening.

Also, be sure to ground in the studs of any several studs that remain in the framing. If you don't, sooner or later somebody will snag a sleeve, or worse.

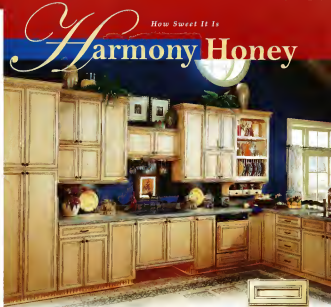
### Removing Stubborn Screws

If a wood screw is clogged with paint so that it's too tight to turn, your screwdriver blade can get a grip. A sawcut will work better than a utility knife for driving the paint.

But if the slot is damaged, try this: Cut out the paint in front, then put the tip of the screwdriver in what remains of the slot and tap it sharply several times with a hammer to drive the tip deeper into the slot. This is especially effective with screws made of brass or bronze.



Get more tips every week from *The Old House*. Go to [www.theoldhouse.com](http://www.theoldhouse.com) or American Online Keyword: **This Old House** and sign up for this free weekly e-mail newsletter.



The name alone imparts warmth and comfort. Harmony is a full overlay door featuring classic miter construction with a veneer recessed center panel and a matching five piece drawer front. Its profile provides the perfect occasion for the rich chocolate glaze found in our Honey finish. How sweet it is! Wellborn's most popular specialty finish, Honey, is now available on our new Harmony door style in The Select Series.

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